

**STUDY ON NEED AND IMPORTANCE OF INFORMATION  
LITERACY IN NEPAL:  
SPECIAL EMPHASIS TO STUDENTS OF MLISC, TU, CENTRAL  
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE  
AND PROFESSIONALS OF KATHMANDU VALLEY**

**A thesis submitted to  
the Central Department of Library and Information Science  
in partial fulfillment of the requirements for a Master's Degree  
in Library and Information Science**

Submitted by  
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December 2008**

## **LETTER OF RECOMMENDATION**

This is to certify that Mrs. Soraja Shrestha has prepared this dissertation entitled **"STUDY ON NEED AND IMPORTANCE OF INFORMATION LITERACY IN NEPAL: SPECIAL EMPHASIS TO STUDENTS OF MLISC, TU, CENTRAL DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE AND PROFESSIONALS OF KATHMANDU VALLEY "**, under my supervision and guidance. I recommend this dissertation for final approval and acceptance.

Date: December 2008

.....

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## **LETTER OF ACCEPTANCE**

The thesis here to attach, entitled " **STUDY ON NEED AND IMPORTANCE OF INFORMATION LITERACY IN NEPAL: SPECIAL EMPHASIS TO STUDENTS OF MLISC, TU, CENTRAL DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE AND PROFESSIONALS OF KATHMANDU VALLEY** ", prepared by Mrs. Soroja Shrestha in partial fulfillment of the requirements for the Master's Degree in Library and Information Science is hereby accepted and approved.

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**Saroja Shrestha**

December, 2008

## ABSTRACT

The present study is a study on **"Need and importance of information literacy in Nepal: special emphasis to students of MLISc, Central Department of Library and Information Science, TU and professional librarians of Kathmandu"**. In the present context where emphasis is given more on getting the accurate information at the needed time. The professionals working as the information providers should be literate. Librarians are the primary information providers so professional librarians and students belonging to the "Department of Library and Information Science" who will pass out as the information scientist must be information literate. This study has been done to find out if the professionals working in libraries and the professionals produced by the Department of Library and Information Science are information literate or not. This study is to see whether they are capable of handling information literacy tools and alongside are they capable of making user aware of the techniques and the tools used in their libraries/information centre. The study has been done also to see if they are capable of giving information literacy skills to their respective users.

The main objectives of the study is to see if the students of MLISc and the professional librarians are information literate or not having computer literacy, network source literacy, library literacy and tool literacy.

The study has covered more than 70 respondents which include students and professional librarians. Altogether 100 questionnaires were distributed and only 70 were returned. Twenty seven (39%) are students and forty three (61%) are professionals as the category of respondents. The professionals are involved in TU libraries, governmental organizational libraries and information centers. Ninety nine percent responses have shown that information scientists should be information literate. Altogether fifty five (80%) respondents from both MLISc students and professionals have suggested that the professionals should have the qualities to identify various information resources, manipulate computer data and retrieve in required format, understand visual, symbols and images, perfect in search strategies. All have accepted the catalogues as an essential tool for information retrieval. They are in favor of user orientation is an essential factor for making people information

literate. Sixty eight (97%) have responded that abstracting and indexing is as a part of information literacy. Sixty six (94%) have responded that current content services (CCS) and current awareness services (CAS) as weekly basis also help to become the person information literate. Sixty nine (99%) respondents have taken reference service as a part of making users information literate. Majorities have accessed to computer either from their own personal computer of home or from libraries and have used internet daily. Majority of the respondents have used internet for education and are also familiar with the search engines. The number of email and electronic resources users as daily are more than others. Sixty four (91%) respondents have knowledge about visual literacy and only the rest do not have. CDs are most used among other visual literacy tools. Sixty five (93%) respondents have told that they have knowledge about network literacy. Sixty two (89%) respondents have used internet and eight (11%) have used local databases for information retrieval. Sixty-one (87%) have taken internet as easy medium to retrieve information and rest have not. Sixty seven (96%) respondents have told that information literate person should have ethics and he / she should follow the rules and regulations as sole ethics. Majority of the respondents have told to formulate information literate society and to develop information awareness at national level. Most of the respondents have suggested to incorporate information literacy course in Public Services Commission, TU Service Commission and as well from SLC level to Master Degree Level education. They have also suggested that information literate person are the life long learner. So, from the responses, it is concluded that the information literate person should have all the qualities demanded by the changing time to proceed to the destination of his profession.

**Soroja Shrestha**

## **DEDICATION**

**To,**

**My beloved father Late Shree Ram Gopal Shrestha**



## **PREFACE**

In the threshold of new emerged universe of knowledge and new advent of technologies, to be lacked of information literacy is to be the just pillars of electricity without power. So, it highlights as the essence of the life cycle with the competitive energy to cope with the challenges occurred in the pave of each and every walks of life with a fruitful outcome in each and every steps of success.

The first chapter of this thesis describes about the background of the study, statement of problem, objective, scope and limitation of the study and need and importance of information literacy. The second chapter has dealt with the literature review on information literacy. The third chapter has focused on information society, information literacy from the different aspects such as computer literacy, tool literacy, visual literacy, network literacy, library literacy, etc. The fourth chapter is about research methodology. The research has done by structured and closed type questionnaire, and observation. The fifth chapter has dealt with the analysis and presentation of collected data. The sixth chapter dealt with the summary, conclusion and recommendations of the study.

This study in detail is indeed a clue scenario of information literacy from the service point of view too. It is hoped that it will give a direction and vision to the newcomers in the days to come as the reflection and mirror for this profession.

It is hoped that the study will assist to apply and to uplift the slogan of 'right information to the right person at the right time' not limiting in words and principles only but also in practical aspects in the coming days as being the tactful librarian.

**December, 2008**

**Saroja Shrestha**

## CATALOGS OF THESIS

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## LIST OF ACRONYMS

CAI	Computer Assisted Instructional Programme
CAS	Current Awareness Services
CAUL	Council of Australian University Librarians
CCS	Current Content Services
CD-ROM	Compact Disc Read only Memory
FTP	File Transfer Protocol
HTML	Hypertext Mark up Language
ICT	Information and Communication Technology
INGOS	International Non Governmental Organization
LAN	Local Area Network
MGVL	Multimedia Global Virtual library
MLISc	Master Degree of Library and information science
NASL	The Nepalese Association of School Librarians
NCLIS	National forum on Information literacy
NETELIS	Networking for Effective Library and Information Services
NII	National Information Infrastructure
NREN	National Research and Education Network
OPAC	Online Public Access Catalogue
PC	Personal Computer
PPP	Point to Point Protocol
RASD	Reference and Adult Services Division
SCONUL	Standing Conference of National and University Libraries
SLIP	Serial Line Internet Protocol
TU	Tribhuvan University
TUCL	Tribhuvan University Central Library
WAN	Wide Area Network
WWW	World Wide Web

# CHAPTER – ONE

## INTRODUCTION

### 1.1. Background of the Study

#### 1.1.1 Library literacy in world

The great challenge for the society in the twenty-first century is keeping pace with the knowledge and technological expertise necessary for finding, applying and evaluating information. It is acknowledged that we live in an information rich society where the amount of information and knowledge in the world is doubling every two years and will double every 12 or 18 months in the year 2000.<sup>1</sup>

Perhaps simple literacy and knowledge on particular aspects/subjects was enough until 19<sup>th</sup> century when literature was not produced in so large number.

Twentieth century experienced accelerated growth of information. The sum of information produced in 20<sup>th</sup> century was many times higher than total information produced until 19<sup>th</sup> century. Therefore, the literacy and knowledge which was sufficient to survive, to be competent and to remain at top until 19<sup>th</sup> century was insufficient for 20<sup>th</sup> century and onwards.

To cope with new situation, a new skill “Information Literacy” was developed in USA in 1970s. The National Forum for Information Literacy was established in USA in 1989 under the chairmanship of Mrs. Petricia Senn Breivik.

Information Literacy in general can be defined as the way to taper the needful knowledge from the pool of information available from the different resources. A common myth prevails in which people are misled into the thought that the knowledge of few tools is sufficient provisioning to acquire useful information. However, as the saying of Richard S. Wurman “Information anxiety is the product of information age that caught us ill prepared and anxious, now people know what they do not know and that makes them anxious.”<sup>2</sup>

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<sup>1</sup> Thornburg, D. “New direction for teaching and learning: the importance of physical space in creating supportive learning environment”. - [S.L.]: Breivil & Senn, 1997. p. 7-8.

<sup>2</sup> Adhikari, Indra Prasad “Information literacy: an appraisal in the context of Nepal” ‘TULSSAA’ vol. 3 Number 1 Nov 2003. P. 18-19.

Plethora of amassed information instead makes the people more confused because of difficulty in their organization. Since people are not equipped with necessary knowledge and skills to gather required information, the outcome produced can be highly unreliable. Therefore, true information literacy should involve both thinking and doing. Given the vast information resources at our disposal, analysis of information need, knowledge of resource types, evaluation of access tools, and interpretation of results are critical for the successful information retrieval. With the arrival of more efficient tools and techniques, new skills are becoming increasingly important even if they are not commonly taught as a part of a formal schooling or non-formal literacy programs. In a recent AOL Time Warner Foundation-sponsored national survey, 92% of the respondents thought that young people need more skills today compared to 10-20 years ago and 91% said it is “very” or “somewhat” important to prepare young people with 21<sup>st</sup> Century (Information) Literacy skills. 74% of US respondents thought that teens are learning basic skills, 60% thought they are being taught to use technology effectively, only 48% believed teens are learning communication skills, 37% thought that teens are getting critical thinking and decision making skills, and only 28% believed young people are learning how to make a difference in their community<sup>3</sup>.

Information Literacy encompasses knowledge of one’s information concerns and needs, and the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address issues or problems at hand. It is a prerequisite for participating effectively in the information society, and is part of the basic human right of life long learning. In conjunction with access to essential information and effective use of information and communication technologies, it plays a leading role in reducing the inequities within and among countries and peoples, and promotes tolerance and mutual understanding through information use in multicultural and multilingual contexts.

The concept of information literacy was first introduced in United States of America. In 1989, The National Forum for Information Literacy was established at the recommendation of the Presidential Committee of the American Librarians Associations, which is the first leading institution for providing information literacy in

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<sup>3</sup> <http://aoltimewarnerfoundation.org>



the world. Even though, information literacy was primarily an academic library movement in the USA, it is now a global phenomenon with active programs under way in all continents<sup>4</sup>

Now there are several institutes dedicated to promote this concept which imparts information literacy skills in USA, UK, Canada, Australia, China, South Africa and other developed nations. The Information Literacy Meeting of Experts, organized by the US National Commission on Library and Information Science and the National Forum on Information literacy with support of UNESCO, representing 23 countries from all of the seven major continents held in Prague, the Czech Republic, September 20-23, 2003 to propose the following basic Information Literacy Principles. Thus we can infer that it is the responsibility of the information centers to provide factual information and educate the clients on how to access the required information<sup>5</sup>.

### **1.1.2 Information Literacy in Nepal**

The term Information Literacy was quite new in Nepal until 1999 and no much literature was available in Nepal until that time. Sri-Lanka Library Association with financial support from IFLA/ALP organized a workshop on Networking for Effective Library and Information Services (NETELIS) from 17-23 October 1999 in Colombo.

Mr. Krishna Mani Bhandary was selected by Sri-Lanka Library Association from Nepal to participate in the Workshop. During the Workshop, Mr. Bhandary found a book “Information Literacy: Essential skill for Information Age” By Kathleen L. Spitzer with Michael B. Eisntierg, 1998. Content and getup of the book attracted to Mr. Bhandary. Later he acquired and studied the book extensively. To some extent he understood the essence and importance of Information Literacy.

Mr. Krishna Mani Bhandary wanted to share his understanding of information literacy with wider audience. He requested to several institutions/persons for financial support for a formal programme to disseminate the essence and importance of information literacy in Nepal.

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<sup>4</sup> Rockman, Ilene F, ‘Information literacy, a worldwide priority for the twenty-first century’ in Reference Services Review.-USA, vo.31, number3, p.209-210

<sup>5</sup> An International Conference on information literacy held in Prague, the Czech Republic, Sept 20-23, 2003

Mr. Robert C. Kerr, Director, American Centre, Kathmandu, extended his financial cooperation and 1<sup>st</sup> National Seminar on Information Literacy was organized by TU Central Library on February 14, 2000 in Kathmandu.

Following papers were presented in the seminar.

1. Prof. Mana Prasad Wagle; Role of Information Literacy in Educational Development
2. Mr. Krishna Mani Bhandary; Information Literacy
3. Mr. Keshab Poudel; Media Literacy
4. Mr. Ram Krishna Timlsena; Right to information

Extensive discussion was held in a separate group in each paper. Following major recommendation was made in the seminar

1. Include Information literacy in the curriculum
2. Include Information literacy, in the test structure of recruiting agencies
3. Create an Information literacy society in Nepal
4. Create an environment of Resource Based Learning

Followings are the achievements in information literacy in Nepal.

Mr. Bhandary as a member of the Subject Committee of M. Lib Sc. Course proposed to the Subject Committee of M. Lib. Sc. for inclusion of the Subject Information Literacy in curriculum of M. Lib. Sc. course. Accordingly

1. Information Literacy, subject is introduced in Master Degree in Library and Information Science study in Nepal
2. Several Articles on Information literacy are published in journals.<sup>6</sup>

Objectives of the “1<sup>st</sup> National Seminar on Information Literacy” in Nepal was to disseminate core ideas of information literacy to key personnel of various sector of the country, so that they would be able to use them in their day-to-day activities. As one of the leading library in Nepal, TUCL is providing different services from its inception for providing ways to gather information for its users. While its focus had

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<sup>6</sup> Bhandary, Krishna Mani Report of the National Seminar on Information Literacy / compiled by Krishna Mani Bhandary. – Kathmandu: TUCL, 2002.

been only on books and periodicals in the previous days, now it has modern information services such as online access service, facilities of reading e-books, e-journals, microfiche services, on-line abstracting/indexing services, email services, Internet services, computer database and information retrieval facilities provided by various websites and different search engines. TUCL in particular serves the academicians, researchers and students studying in the degree level in the Tribhuvan University (TU) and the information seeker all over the country. It also provides the required skills for the use of the library resources through user orientation program to students of Central Departments and all those who visit TUCL. Information retrieval training which helps them to access various online and internal databases provided by TUCL is very praiseworthy.

Even though information literacy as such is highly useful, there has been no previous work on studying the need and its importance in context of Nepal. In this study, the researcher has conducted a formal study to project the demand for tools, techniques and resources for information literacy within the scope of TUCL. The study also includes the measurement of its needs based on the interviews from the students studying in the TU including several professional librarians of Nepal.

### **The Nepalese Association of School Librarians (NASL)**

The Nepalese Association of School Librarians (NASL) is marching ahead with a holy spirit to organize school related activities. It is disseminating information to schools, school libraries colleges, universities, other educational institutions and the like minded personalities. It is on the way to conduct research on the issues relating to school libraries in Nepal, position of school libraries and the awareness of information literacy. It is also advocating or the integration of information literacy in high school level curriculum.<sup>7</sup>

## **1.2. Statement of the Problem**

Information literacy includes several components such as computer literacy, library literacy, media literacy, network literacy, visual literacy and tool literacy. Besides, information resources as mentioned in the previous section are massively due to better

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<sup>7</sup> Siwakoti, Sharada "Information leadership: A culture of change) . – Kathmandu: (SMARIKA: 2063), Nepal Library Association

ways of information preservation and use of new tools, technology, and media. With the evolution of the information literacy in the developed countries, the developing nation like Nepal should take a leap towards reaping the benefits, particularly for scholars and students. However, simple questions yet to be formally answered are: who should take charge of disseminating information literacy programs? How its usage can be practically implemented? Will the introduction of tools and techniques for information literacy be beneficial? What are the target groups and what extent of resources can be useful to maximize the gain for the users etc?

Several libraries and information centers exist in Nepal. For example, about 39 community libraries have been established including literacy centers and mobile libraries.<sup>8</sup>

Number of universities, INGOs, government offices also have their own libraries including few private libraries such as Madan Puraskar Pustakalaya, which maintains plethora of books (about 30,000) written in Nepali language. Similarly since 1990, government of Nepal has taken initiative to establish local information centers at each district with an objective to collect compile and analyze information to use for the district level planning.<sup>9</sup> These libraries and information centers of Nepal provide information services through various ways. With context to this study, the department of library science of TU has integrated information literacy course in its curriculum of the Masters Degree program in Library and Information Science (MLIS). Most of the library and Information centers of Nepal have been providing user-orientation programs to make users information literate. For example, TUCL has been providing user's orientation to the students of the central campus, researchers and teachers, which is a commendable part of information literacy awareness step.

However, it is necessary to evaluate their information literacy test and ability of making people information literate and able to help them to identify their need, utilize resources to solve the problems. Evaluation of effectiveness of the program and student's information literacy test can be measured through ability test. It is also now necessary to estimate the general progress on information literacy program,

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<sup>8</sup> (<http://www.readnepal.org/tour/index.htm>)

<sup>9</sup> Shresth, Nirmala. "Information literacy for multipurpose community telecentre". – Kathmandu: pp:1-6

particularly for analyzing its need. Such a study should also help in forecasting the required resources that should be focused for the target groups, including the variety of ways the information literacy can be disseminated to the users. The study would help in understanding which tools and techniques can most beneficial for the providers and users in economic and temporal terms.

This study helps to obtain the answer regarding whether the professional working in libraries and the professional produced by Department of Library and Information Science are capable to understand different types of information literacy techniques and procedure or not. It is very much necessary to know the level of understanding of literacy tools by the professionals so that they could disseminate information properly and make the user information literate.

### **1.3. Objectives of the Study**

The general objective of this study is to highlight the need and importance of information literacy in Nepal. The other specific objectives of the study are as follows.

To study the library literacy of the students of MLISc and Professionals.

- 1) To study the computer literacy of the students of MLISc and Professionals.
- 2) To study the network sources literacy of the students of MLISc and Professionals.
- 3) To study the tool literacy of the students of MLISc and Professionals.

### **1.4. Scope and limitation of the Study**

The scope of the study is limited within the professional librarians of TUCL and other nearby information centers of Kathmandu valley, and the MLISc Students of Central, Department of Library and Information Science up to the year 2005. Therefore, observations and projections were limited within the libraries and information Centers of Kathmandu valley and Central Department of library and Information Science.

### **1.5 Significance of the Study**

Information literacy is one of the interesting areas in library and information science studies. The present study is based on the survey conducted with the professionals in Nepal whoever have managed the information centers, libraries and the students of the Department of MLISc, TU. It has explored various types of information literacy resources available in the present context. It has also included the knowledge and skill

levels of the information providers. Besides, it has evaluated the outcome of the information literacy rate among the information managers, information officers, librarians and those whoever have been working in similar fields. Finally, the projection of need for information literacy programs, resources and tools are explored. This study shall primarily benefit the information centers to get the perspective of their current programs. It presents the ways to classify and measure the information literacy services provided by such centers. Similarly, it can also be used to check the infrastructure and resources required to provide such services to the reasonable extent. The usefulness of literacy skill is beneficial for students and researchers in finding variety of ways they can extract exact information they need.

The main rational of the study is to demonstrate the present information literacy skills among the professional librarians and students of MLISc. This study is helpful in establishment of digital information centers in Nepal with fully equipped and skilled manpower. The study of such kind has not yet been carried out in Nepal and results of this study will be helpful in revealing the trends of information literacy in Nepal. This study will be carried out among those students of MLISc and professional librarians of Kathmandu Valley by whom documentation services have been provided to the users of libraries and documentation Centers. Professional librarians and students of MLISc, Department of Library and Information Science, TU was chosen on the basis of information providers to the users through their different tools of information literacy. They have helped the users to operate different information literacy tools along with the users orientation programme and other information literacy awareness packages such as, organizing computer training, documentation training and retrieval training. Professional librarians have made the users independent and life long learning persons. Who can identify their needs; can retrieve the useful materials as and when they need. Therefore the librarians are the authentic persons who develop information literacy among their targeted groups. This study will be a reference for the researchers who might like to do the research on the similar topic.

## 1.6 Definition of terms<sup>10</sup>

**Computer literacy:** An understanding of the concepts, terminology and operations that relate to general computer use. It is the essential knowledge needed to function independently with a computer. This functionality includes the ability to solve and avoid problems, adapt to new situations, keep information organized and communicate effectively with other computer literate people."

**Information:** Information as knowledge, intelligence, facts or data which can be used, transferred, or communicated.

**Information literacy:** information literacy is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."a set of competencies that an informed citizen of an information society ought to possess to participate intelligently and actively in that society"

**Information literate person:** To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information"

### *Information resources*

**Information Retrieval:** Finding documents, or information contained in documents, in a library or other collection, selectively recalling recorded information. Methods of retrieval vary from a simple index or catalogue to the documents, to some kind of punched card or microfilm record which required. Large or expensive equipment for mechanically selecting the material required. Classification, Indexing and machine searching are all systems of information retrieval.

**Information Services:** Library information center process information- bearing documents and organizes them for use to those who seek it. A library makes both extensive and intensive efforts to inform the users what information is available in what document through its various bibliographical and documentation services.

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<sup>10</sup> <http://www.virtualbill.net/clu/definit.html>

**Library:** The terms used for a collection of books and other libraria which have been kept for reading, study and consultation.

**Library literacy:** Library literacy is usually defined as 'the learning of the basic skills of finding information' (Lubans, 1978) and refers to competence in the use of libraries with a particular emphasis on being able to make informed decisions about sources of information.

**Library services:** Refers to the facilities which are provided by the library for the use of the books and the dissemination of information.

**Network literacy:** Knowledge: 1. awareness of the range and uses of global networked information resources and services. Skills: 1. the ability to retrieve specific types of information from the network using a range of information discovery tools

### ***Professional***

**Reference services:** Reference service means contact between the right reader and the right book at the right time and in the right personal way.

**Tool literacy:** "ability to understand and use the practical and conceptual tools of current information technology, including software, hardware and multimedia, that are relevant to education and the areas of work and professional life that the individual expects to inhabit. This can be taken to include the basics of computer and network applications as well as fundamental concepts of algorithms, data structures, and network topologies and protocols"

**Users:** A person or an organization needed specialized information from an existing or planned information services or information or documentation system



## **1.7 Organization of the Study**

This study has been organized in the format given below.

- The first chapter deals with an introduction as background of the study, statement of the problem, objectives, scopes and limitations, significance of the study, definition of the terms and this heading itself.
- The second chapter deals with the relevant studies of the research.
- The third chapter deals with the detail information about the study area.
- The fourth chapter deal with the research methodology, research design, population, sampling procedure, data collection procedure and data analysis procedure.
- The fifth chapter deals with analysis and presentation of study which evaluates either the set objectives and hypothesis is positively met or not.
- The final chapter deals with summaries and recommendations.

## CHAPTER - TWO

### LITERATURE REVIEW

Review of previous writing is a part of the research. It provides general ideas about the subject matters and methodology which helps the researcher to achieve the targeted objectives. Thus, this chapter reviews the available literature found in books, journals, research papers and articles published by various scholars from different perspectives focusing on information literacy. Information literacy itself is a general subject matter that incorporates several unique literacy features such as Library Literacy, Computer Literacy, Media Literacy, Visual Literacy, Technology Literacy, Ethics, Critical Thinking, and Communication Skills.<sup>11</sup>

Anthony Comers, former president of the Bank of Montreal who spoke to the 1999 graduating class of the University of Toronto: “Whatever else you bring to the twenty-first century workplace, however great your technical skills and however attractive your attitude and however deep your commitment to excellence, the bottom line is that to be successful, you need to acquire a high level of information Literacy.”<sup>12</sup>

The **American Library Association presidential committee** on information literacy has only recognized the importance of information literacy to a democratic society, and in 1989 provided a definition in terms of requisite skills. To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information<sup>13</sup>

[Carbo](#) (1997) notes that Zurkowski (the then president of the US Information Industry Association) used the phrase "information literates" in 1974, to identify people "trained in the application of information resources to their work".<sup>14</sup>

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<sup>11</sup> Work Group on information competency, Commission on learning resources and instructional technology, 1995

<sup>12</sup> Rockman, Ilene F. "Information literacy, a WorldWide Priority for the twenty-first century". Reference Services Review, 31; 2003; 209-210.

<sup>13</sup> Spitzer, K. L. (et. All), "Information Literacy: Essential Skills for the Information Age" .- New York, p. 22

<sup>14</sup> Carbo, Toni. "Mediacy: knowledge and skills to navigate information superhighway" , in Infotecs conference: Monte Carlo, Monaco: 10-12 March 1997. Paris: UNESCO.

[Plotnick](#) (1999), [ACRL](#) (2000) and numerous other stated that "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information" <sup>15</sup>

Other definitions of the information literate person tend to cover the same elements, but expand on them in one way or another. For example,

[Doyle](#) (1992) defined an information literate person as one who:

- "recognizes the need for information;
- recognizes that accurate and complete information is the basis for intelligent decision making;
- identifies potential sources of information;
- develops successful search strategies;
- accesses sources of information, including computer-based and other technologies;
- evaluates information;
- organizes information for practical application;
- integrates new information into an existing body of knowledge, and;
- Uses information in critical thinking and problem solving." <sup>16</sup>

Lenox and Walker (1993) have also defined information literacy by characterizing the information literate person: one who has the analytical and critical skills to formulate research questions and evaluate results, and the skills to search for and access a variety of information types in order to meet his or her information need. As will be outlined below, this focus on the individual is continued in the US and Australian standards for information literacy. <sup>17</sup>

[Shapiro and Hughes](#) (1996) provide a broader vision in referring to:

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<sup>15</sup> Plotnic, Eric. "Information literacy: ERIC Digest, Educational Resources Information Centre, 1999". (ERIC document no; ED427777). <http://www.ericdigests.org/1999-4/information.hmt>

<sup>16</sup> Doyle, Christina. "Outcome measures for information literacy within the national educational goals of 1990" : final report of the National Forum on Information Literacy. Summary of findings. – Washington DC: US Department of Education. ERIC document no ED351033)

<sup>17</sup> Lenox, M.F. and Walker, M.L. "Information literacy in the educational process". – The Educational Forum. Vol. 57. number(2), pp: 312-324.

"a new liberal art that extends from knowing how to use computers and access information to critical reflection on the nature of information itself, its technical infrastructure, and its social, cultural and even philosophical context and impact"<sup>18</sup>

The Prague Declaration (2003) included a definition of information literacy, positioning information literacy within lifelong learning, namely:

Information Literacy, which encompasses knowledge of one's information needs and the ability to identify, locate, evaluate, organize and effectively use information to address issues or problems at hand, is a prerequisite for participating effectively in the information society, and is part of the basic human right of life long learning.<sup>19</sup>

The UK's Chartered Institute of Library and Information Professionals (CILIP) produced a definition in 2005 which aimed to be shorter and snappier than some of the others (see also Armstrong, 2005):

Information literacy knows when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner<sup>20</sup>

The Standing Conference of National and University Libraries (SCONUL) in the name of its Task Force stated that "Information literacy is the adoption of appropriate information behavior to identify, through whatever channel or medium, information well fitted to information needs, leading to wise and ethical use of information in society."<sup>21</sup>

**Alvin Toffler** has said that illiterates of the 21st century will not be those who can not read and write, but those who can not learn, unlearn and relearn.<sup>22</sup>

**Eric Hoffer** has emphasized the same value with a warning." In a time of drastic change, it is the learners who survive; the learned find themselves fully equipped to

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<sup>18</sup> Shapiro, Jeremy J. and Hughes, Shelley K. "Information Literacy as a Liberal Art: Enlightenment proposals for a new curriculum" .- Educom review. Vol. 31 (2), pp: 31-35

<sup>19</sup> "An International Conference on Information Literacy ".- Prague, the Czech Republic, September 20-23, 2003,

<sup>20</sup> [http://www.clip.org.uk/professional\\_guidance/informationliteracy/definition/](http://www.clip.org.uk/professional_guidance/informationliteracy/definition/)

<sup>21</sup> Society of College, National and University Libraries (SCONUL)." Information skills in higher education: a SCONUL position Paper. .-London: SCONUL

<sup>22</sup> Toffler, Alvin."Tommorow's economy" India Today 28(11) March11-17, 2003, p.28

live in a world that no longer exists.”. Its citizens have to constantly acquire new set of skills<sup>23</sup>.

In 1974, Paul Zurkowski was the first person to introduce the concept of information literacy, in a proposal submitted to the National Commission on Libraries and information resources to their work can be called information literate: They have learned techniques and skills for utilizing a wide range of information tools including primary sources, order to come up with in information solutions to their problems.<sup>24</sup>

M.R. Owens information literacy to democracy in 1976, stating, “Beyond information literacy for a greater work effectiveness and efficiency information literacy is needed to guarantee the survival of democratic institutions. All men are created equal but voters with information resources are in a position to make more intelligent decisions than citizens who are information illiterates.”<sup>25</sup>

In 1976 Burchinal in a paper presented at the Texas A & M University Library’s Symposium Suggested: “To be information literate requires a new set of skill. This includes how to locate and use information needed for problem-solving and decision-making efficiently and effectively”<sup>26</sup>

In 1994 Behrens points out the other definition of the 1970s were developed in response to the rapidly increasing amount of information available and to the fact that becoming more difficult to negotiate the complex world of information.<sup>27</sup>

In 1980 application of computer in library and information field has become more powerful in retrieval and manipulation of information.

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<sup>23</sup> Satija, M. P. “The five Laws in Information Society and Virtual libraries Era”. – Amritsar: G N D. University

<sup>24</sup> Bhandari, Krishna Mani, “Information Literacy”. – TULSAA . vol. 3 Number1. Kathmandu: 2003, p.13

<sup>25</sup> Bhandari, Krishna Mani, “Information Literacy:Paper presented in Report of the National Seminar on Information Literacy, February 14, 2004. p. 4

<sup>26</sup> Spitzer, Kathleen L. “Information Literacy: Essential skills for the information age”. – New York: ERIC, 1998. p. 22

<sup>27</sup> Ibid p. 22

On 23<sup>rd</sup> of September 2003 the conference on Information Literacy held at Prague defined Information Literacy is a basic human right to life long learning.<sup>28</sup>

Shigeru Aoyagi, Chief, Division of Basic Education, UNESCO, stated that: “For all societies information literacy is becoming an increasingly important component of not only literacy policies and strategies, but also of global policies to promote human development.”<sup>29</sup>

NCLIS (National Forum on Information Literacy) consultant Dr, Forest Woody Horton: “In our emerging Information Society.....This is the reason why Information Literacy is so important, because, without it, the information society will never be able to rise to its full potential and will remain, instead only an unrealized dream”<sup>30</sup>

“The Fundamental of information literacy are resource based learning: a library with rich collection of printed and electronic facility to access electronic/ library to acquire information literacy skill librarians can play a vital role to import information skill work together with the faculty, researchers and the students”<sup>31</sup>

Information Literate person have an edge of in the competitive environment of the information age. They are independent learners know what information is required and are capable of retrieving the relevant information to solve the problem at hand. They have the skill for manage technology and tools, so has to access pertinent information. There work performance is enhanced and quality production is achieved. They can adjust themselves to the situation if a growing numbers of students are produced in Nepal with such a skills they can have to reduced poverty which is a common problem of developing nation.

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<sup>28</sup> An International Conference on Information Literacy held in Prague, the Czech Republic, September 20-23, 2003

<sup>29</sup> Shrestha, Nirmala. “Overview of an International Conference on Information Literacy” . – Prague, the Czech Republic, September 20-23, 2003.

<sup>30</sup> Woody Horton, Forest. “Access & Information Literacy as a Basic Right” .- USA: Paper presented in” An International Conference on Information Literacy held in Prague, the Czech Republic, September 20-23, 2003”

<sup>31</sup> Bhandary, Krishna Mani. “Information literacy and librarian’s role”, (SMARIKA 2062 B.S.). – Kathmandu: Dilliraman Kalyani Regmi Library Development Committee 2062. B.S.

Knowledge about knowledge is known a necessity and this knowledge can be gain through information literacy. Overwhelming sea of information is the problem of our time. Information literacy teaches us how to swim in this sea.<sup>32</sup>

Finally, the outcome as the essence of this chapter is that to be an information literate person, he / she should accommodate himself / herself to cope and proceed in the information age with providing the services in a satisfactory manner thinking that information literacy is an important component of not only literacy policies and strategies but also of global policies to promote human development as life long learning with the skills to locate, access, evaluate, organize and manage it for the sufficiently and effectively use of information as and when needed which will be the foundation for problem solving and decision making in the utmost necessity in each and every critical phenomenon.

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<sup>32</sup> Bhandary, Krishna Mani. “ Information Literacy: a Nepali Experience”, in “ INSAP: Newsletter”, Number 25, March 2004.

## CHAPTER THREE

### 3. Focus of the study

Indeed, the detail information about this study area is mentioned below in its essential plethora.

#### 3.1 Information society

Information proliferation has caused an overload of creating difficulties in information management and retrieve. It is said that more new information has been produced in the last 30 years than in the previous 5000 years. Volumes of all printed knowledge doubles every five years<sup>33</sup>

Alvin Toffler in a long drawn empirical and analytical study of the social and economic trends distils the following characteristics of the information society.

- Knowledge creation and transfer leads to creation of wealth.
- Industrial production has become cyclic customized and de-massified with the use of IT.
- Knowledge is a superior substitute for the conventional factors of productions such as land, labor, raw materials and capital
- Electronic information, being eminently fluid, has become a five medium of exchange.
- Managers, researchers and information professionals are the new heroes of the information society
- Producer and consumers fuse into a “prosumer”.<sup>34</sup>

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<sup>33</sup> (Reuters Magazines, 1997)

<sup>34</sup> Toffler, Alvin Powershift: knowledge, wealth and violence at the edge of the 21<sup>st</sup> century. – New York: Bantam Books, 1991, 232-234p.



## 3.2 Information literacy

### 3.2.1 Computer literacy

Notions of “computer literacy,” “technological literacy” and “information literacy” not only borrow terminology from the text literacy but begin to redefine what “text” is and the tools and skills that literate people need to use and create it.<sup>35</sup>

It is generally thought of a familiarity with personal computers and the ability to create and manipulate documents, and also familiarity with email and the Internet.<sup>36</sup>

Computer literacy ensures of a technological know how about hardware and software such as-

- This global and wired society allows local production with global technology
- Library and Information Centers are the warehouses of the most valuable goods of the information society.
- Every third house in advance countries owns a PC
- There are 800 million web pages; and 5,50 000 books published every year.
- Wall less libraries are leading to a vision of multimedia global virtual library (MGVL) inaugurating an era of “death of distance”
- Remote and wireless access transcends barriers of time and place.
- Power and nature of new media have a visible impact on the shape wares, functioning services of libraries. CDs and websites just as books and other documents.
- Library and information use pattern has changed in the face of information network, wall-less libraries, powerful library system, OPACs and convergence of technology.
- Outcome of the new environment is virtual library.
- Virtual library: Networked digital libraries configured in the cyber space. This library is vision of technology with great potential for the future.
- Virtual library is an individual oriented library .further to availability it ensures accessibility of information.
- Networks especially the internets, intranets, LAN ensure information for all in a democratic way.

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<sup>35</sup> Wagner, D. A. & Kozma, R. “New technologies for literacy and adult education: a global perspective”. - Pennsylvania

<sup>36</sup> Bhandari, Krishna Mani, “Information Literacy”. – Kathmandu: TULSAA.(Vol.3), (1), 2003

- In face of information overload, it is mandatory to customize information to suit individual needs.
- Save the time of citizens is to ensure timely information.
- Timely supply of information makes the difference in this competitive world.
- To save the time one should become the member of network.
- OPACs offer a single interface to numerous databases with seamless integration of print and electronic sources to save the time of users
- CCF, MARC21, Metadata and various Markup Languages help standardization.
- Technology convergence is a great time saver.
- New Tool and techniques are required to organize electronic knowledge for its timely delivery.<sup>37</sup>

### **3.2.2. Tool literacy**

Tool literacy is ability to use print and electronic resources including software and online resources.

Tool literacy or ability to understand and use the practical and conceptual tools of current information technology relevant to education and the areas of work and professional life that the individual expects to inhabit<sup>38</sup>

Tool literacy, computer literacy are the skills that are required to manage technology (for example, in “computer literacy” this would be using mouse, connecting to the Internet, and so forth), and those skills required to manage information (for example, how to organize, search, and produce digital information).

- Technology convergence is a great time saver.
- New Tool and techniques are required to organize electronic knowledge for its timely delivery.

New information literacy shall be a straight forward extension of the older print literacy, but with several important caveats driven by the requirements of the Information and communication Technology (ICT). Thus, the convergence of text,

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<sup>37</sup> Satija, M P The five laws in information society and virtual libraries era

<sup>38</sup> Information literacy-Wikipedia the free encyclopedia, p.1)

sound, and video on the computer offers the reader/viewer information multi media. Along with software packages make it easy for anyone with the necessary skills to create multimedia products in a variety of forms in addition to text. The storage of and instant access to millions of digital documents on the web and the unique navigational conventions of hypertext require a different set of strategies to find, read, and use these documents. Anyone with a computer set up in the appropriate way, an Internet connection, and the necessary webpage design tools and skills can make their intellectual contributions available to millions of Internet users around the world. As a consequence, literacy has come to encompass a broader range of human competencies needed to access and manage information, analyze and interpret this information, critically evaluate its relevance and credibility, and use information to solve everyday problems, collaboratively create knowledge products, and communicate ideas in a variety of media for purposes valued by a community.<sup>39</sup>

This way of defining information literacy, using new ICTs and multiple media as part of everyday social practice, is in greater synchrony with the needs of the knowledge economy and information society.<sup>40</sup>

Thus, there are new skills and tools that must be acquired to support this acquisition. The following sections examine the skills and the tools that can be used to support the creation of knowledge products, the social contexts that can support and be supported by these skills, and the kinds of digital resources that can be of use to literate communities.<sup>41</sup>

### **3.2.3. Visual literacy**

“Visual literacy includes such areas as facial expressions, body language, drawing, painting, sculpture, hand signs, street signs international symbols, layout of the pictures and words in a textbook, the clarity of type fonts, computer images, student

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<sup>39</sup>Quellmalz & Kozma, (21<sup>st</sup> Century Partnership, 2003; Committee on Information Technology Literacy, 1999); ETS, 2002; ISTE, 1998; OECD/Statistics Canada, 2000; p 13.

<sup>40</sup> (OECD, 1996, European Commission, 2000)

<sup>41</sup> Wagner, Daniel A. & Kozma, Robert, “New Technologies for Literacy and Adult Education: A Global Perspective”

produced still pictures, sequences, movies or video, user friendly equipment design, critical analysis of television advertisements and many, many other things”<sup>42</sup>

Mary Alice White stated that:

“Young people learn more than half of what they know from visual information, but few schools have an explicit curriculum to show students how to think critically about visual data”<sup>43</sup>

“The majority of information absorbed by human beings is collected with our sense of vision. It seems logical that we emphasize the development of visual skills as a way of preparing for successful and satisfying lives”<sup>44</sup>, a guide for International Visual Literacy Association Board Members and officers.

Visual literacy as defined by the International Visual Literacy Association is “a group of vision competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visual actions, objects, and/or symbols, natural or man-made, that are [encountered] in [the] environment. Through the creative use of these competencies, [we are] able to communicate with others. Through the appreciative use of these competencies, [we are] able to comprehend and enjoy the masterworks of visual communications”<sup>45</sup>

Anthony Comper, former president of the Bank of Montreal who spoke to the 1999 graduating class of the University of Toronto: “Whatever else you bring to the twenty-first century workplace, however great your technical skills and however attractive your attitude and however deep your commitment to excellence, the bottom line is that to be successful, you need to acquire a high level of information literacy.”<sup>46</sup>

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<sup>42</sup> <http://www.ivla.org/admin/legal/>

White, Mary Alic, “Columbia Teacher’s College”. – Columbia: 2004

<sup>44</sup> Keith, Lightbody, “ The Visual Literacy Classroom” 9 May, 2002. p. 4.

<sup>45</sup> Fransecky, “The Visual Literacy Classroom” 9 May, 2002

<sup>46</sup> “ Information literacy key to success in 21<sup>st</sup> century Bank of Montreal CEO advises University of Toronto Graduates” . – Canada Newswire (14June). –Toronto: 1999

Patricia Breivik, Dean of the Library at San Jose University (California), in a speech delivered at the International Lifelong Learning Conference held in Australia in 2000 adds, “Within today’s information society, the most important learning outcome for all students is their being able to function as independent lifelong learners. The essential enabler to reaching that goal is information literacy.”<sup>47</sup>

It is the ability to understand and use images, including the ability to think, learn and express oneself in terms of images. Visual learning is the acquisition and construction of knowledge gained through intersection. Visual thinking is the ability to use visual symbols to express ideas and convey meaning. Visual communication is a process of sending and receiving message using images.

Visual literacy is defined as the “ability to construct meaning from visual images”<sup>48</sup>

To make meaning from images, the ‘reader’ uses the critical skills of exploration, critique and reflection. Lapp et. al. (1999) use the term “intermediality” to describe the combined literacy’s needed to read in a multi-media world. They stress the importance of active reading based on information visualization and the importance of visual communication to capture attention, reinforce knowledge and increase audience responses.

Visual literacy is about interpretation images of the present and past and producing images that effectively communicate the message to an audience.<sup>49</sup>

The term “visual literacy” was first used by the writer John Debes in 1968 (1968). Messaris (1995) defines visual literacy as the gaining of knowledge and experience about the workings of the visual media coupled with heightened conscious awareness of those workings.<sup>50</sup>

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<sup>47</sup> <http://elvis.cqu.edu.au/conference/2000/home.htm>

<sup>48</sup> Georgis, C. Johnson, Bonomo, N. J., Colbert, C. et.al . – “Visual Literacy, Reading Teacher” 53(2) 1999: 146.p.1

<sup>49</sup> Lapp, D. , Flood, J. , and Fisher, D. “Intermediality: How the use of multiple media enhances learning” . – Reading Teachers , 52(7), 776-780

<sup>50</sup> Messaris, P. “Visual Literacy and visual culture” .- Paper presented at the Image and Visual literacy: selected reading from annual conference of the international visual literacy association, (1995,October12-16). – Arizona: 1995

Visual literacy includes the group of skills which enable an individual “to understand and use visuals for intentionally communicating with others” (Ausburn & Ausburn, (1978: 291). Visual literacy is what is seen with the eye and what is ‘seen’ with mind. A visually literate person should be able to read and write visual language. This includes the ability to successfully decode and interpret visual messages and to encode and compose meaningful visual communications.<sup>51</sup>

Visual literacy involves developing the set of skills needed to be able to interpret the content of visual images, examine social impact of those images and to discuss purpose, audience and ownership. It includes the ability to visualize internally, communicate visually and read and interpret visual images. In addition, to students need to be aware of the manipulative uses and ideological implications of images. Visual literacy also involves making judgments of the accuracy, validity and worth of images. A visually literate person is able to discriminate and make sense of visual objects and images; create visuals; comprehend and appreciate the visuals created by others; and visualize objects in their mind’s eye. To be an effective communicator on today’s world, a person needs to be able to interpret, create and select images to convey a range of meanings.

There are many forms of visual communication including gestures, objects, signs and symbols. Visual sign systems are every where. For example, dance, film, fashion, hairstyles, exhibitions, public monuments, interior design, lighting, computer games, advertising, photography, architecture and art are just some examples of visual communications.

To be visually literate a person should be able to understand the subject matter of images:

- analyze the syntax of images including style and compositions;
- analyze the techniques used to produce the image;
- analyze and interpret images to gain meaning within the cultural context the image was created and exists;
- evaluate the aesthetic merit of the work;

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<sup>51</sup> Ausburn, L., & Ausburn, F. “Visual literacy: background, theory and practice”. – “PETS”, 15(4), pp: 291-297

- evaluate the merit of the work in terms of purpose and audience; and
- grasp the synergy, interaction, affective impact and or ‘feel’ of an image

The significance of visual literacy has been apparent throughout history and across disciplines. For example, the reading of maps and x-rays has been vitally significant in our lives. Similarly human have relied on images to make meaningful interpretations and understandings of sophisticated and complex ideas such as mathematical or chemical formulas or the reading of architectural plans. The mixing of linguistic and pictorial elements was seen as the best medium for explanatory representation of conceptual structures.

Visual literacy is a thoughtful and sustained form of understanding. Visual literacy is not something that is confined to a particular discipline or area of the curriculum. Rather it is something that should be taught from the youngest age and involves the intelligent consideration of images from a multitude of sources. Visual literacy has emerged from a number of disciplines including visual arts, history, aesthetics, linguistics, literacy, philosophy, psychology, perceptual physiology, sociology, cultural studies, media studies, instructional design, semiotics, communications studies and educational technology.

Visual literacy is important because contemporary culture has become increasingly dependent on the visual especially for its capacity to communicate instantly and universally. A very high percentage of all sensory learning is visual. “A wise man once said that a picture is worth 1000 words. But when visual symbols are used in place of words to express an idea or to evoke a feeling or a mood within us, it is necessary for the viewer to be able to understand the message” argues that “the need to learn to read visual images is an urgent one that touches at all levels in our society.”<sup>52</sup>

Visual literacy levels directly determine our level of visual comprehension and the ability of the individual to be able to read images in a meaningful way. Pictures exist all round us. They surround us. The economy relies heavily on visual representation and a sense of design, style and ‘feel.’

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<sup>52</sup> Oring, S. “A call for visual literacy”. –“ school Arts”,( April), pp:58-59

Understanding pictures is a vital life enriching necessity. Not to understand them is visual illiteracy.<sup>53</sup>

Visual images are becoming the predominant form of communication across a range of learning and teaching resources, delivered across a range of media and formats.

Charls Brumback, the chairman of the Newspaper Association of America said in 1995 that we are heading to a culture of visual literacy.

He said “As newspaper penetrations falls, competitors cut into newspaper ad share, and the culture itself moves from textual literacy to visual literacy”<sup>54</sup>

### **3.2.4. Media literacy**

The National Tele media Council a professional association designed to promote media literacy:

“The ability to choose, to understand-within the context of content, from /style, impact, industry and production to question, to evaluate, to create, and/or produce and to respond thoughtfully to the media we consume.”<sup>55</sup>

From the Aspen Institutes National Leadership Conference on Media Literacy, a foundation dedicated to improving the social and cultural life of U. S. citizens: “The ability of a citizen to access, analyze, and produce information for specific outcomes.”<sup>56</sup>

From the cultural Environment Movement, a public interest group devoted to increasing literacy as a way to combat corporate takeover of media: “The right to acquire information and skills necessary to participate fully in public deliberation and communication. This requires facility in reading, writing, and story telling; critical

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<sup>53</sup> Bamford, Anne. “The visual Literacy White Paper” . – Sydney: p.2

<sup>54</sup> Fitzgerald, M. “International Federation of Newspaper Publishers Research Association” , 128(12), pp: 48-49

<sup>55</sup> NationalTelemedia Council (1992), p. 12

<sup>56</sup> Aspen Institute,s National Leadership Conference on Media Literacy (1992, p. 1)



media awareness; computer literacy, and education about the role of communication in society”.<sup>57</sup>

From the National Communication Association, a professional scholarly organization composed largely of university academics: “Being a critical and reflective consumer of communication requires an understanding of how words, images, graphics, and sounds work together in ways that are both subtle and profound. Mass media such as radio, television, and film and electronic media such as the telephone, the internet, and computer conferencing influence the way meanings are created and shared in contemporary society. So great is this impact that in choosing how to send a message and evaluate its effects, communicators need to be aware of the distinctive characteristics of each medium”<sup>58</sup>.

“Therefore, Media literate person should have the ability of evaluation, judgment and impartiality. The Media literate person should possess the effective leadership capability and become a perfect citizen of the country because they keep themselves aware of socio economic development of the national and international affairs. They keep themselves up to date with all the geological, political, cultural, development of the world. Thus we can say media literate person is perfect human beings”

### **3.2.5. Library literacy**

Library literacy is that literacy by which the person should treat by

- Knowing about types of libraries and their function.
- Making use of catalogues, collection, development and any special collections.
- Understanding the use of reference tools for different purposes.
- Use of secondary information sources, such as indexes, abstracts, reviews and biographies.
- Familiarization with library rules, do's and don't do's to maintain library environment.
- Knowledge of the online public access catalogue system.
- Knowledge of library ethics

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<sup>57</sup> “The People’s Charter”, (1996) p.1

<sup>58</sup> National Communication Association (1996, p. 2), a professional scholarly organization composed largely of university academics

- Develop the resources based learning habit.
- Knowledge on value of user's orientation programs provided by library.
- Familiarization with search formulation techniques of information retrieval.
- Familiarization with library resources (e.g. printed and electronic resources)
- Knowledge of information retrieval using web/net/databases

Library literate person is an independent user's.

- Library literate personnel are devoted to there work

They should be service oriented

- Familiarization of Ranganathan's five laws of library science
- Organization of workshop, seminars and talk programs in library about information literacy in time to time is one of the additional positive factors of awareness campaign.

### **3.2.6. Network literacy**

It is the ability to locate access and use information in networked environments at the national and international levels. Network technology (LAN, WAN Internet, Internet and telecommunications) with multimedia, digital storage and digital delivery, makes information as networked information and tremendously extends the usefulness of information resources and services. Information society is a networked information society. Networked literacy, defined as "ability to identify, access, and use electronic information from the information network is information literacy based on network technology and network environment."<sup>59</sup>

It will be essential skill for people to live a successful and productive life in a networked information society.

From school to colleges or universities, from public libraries to academic or special libraries, from government relevant agencies to education associations or library associations, teachers, librarians and other educators have been emphasizing,

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<sup>59</sup> MacCluren Charles R. "Network literacy: a role of libraries?" " Information Technology and libraries", (June 1994), VOL.13 (2) : 115-125.

experimenting and working to educate various types of people to become as “information-literate persons” to meet the society changing.

While libraries function as information resources centers and are moving toward digital/virtual libraries, it becomes very critical to educate users in network literacy.

There are several aspects of this new task that need to be explored:

- What is the network literacy particularly for library users?
- What are the roles of librarians in teaching network literacy for users?
- What are the differences between the traditional bibliographic instruction and network literacy education in a library?
- What contents should be covered in the instruction of network literacy? What teaching methods including facilities should be used by librarians to teach network literacy?
- What kinds of curricular collaboration are needed for teachers and librarians?
- And, what kind of cooperation will be required between computer/network specialists and librarians?

In general, library network environment is formed by three types of net-worked information systems. The first type is local area network, (LAN) systems, which focus on those microcomputer based systems such as Novell Netware, Microsoft Windows NT, Apple Local Talk, Banyan VINES, LANtastic, and others.

The file servers in LAN are loaded with microcomputer based applications including various CD-ROM databases. All microcomputer based on workstations are linked to one or more file servers to share various applications and information. LAN is the basic level of network to link end users to networked information world.

Besides information loaded in file servers, LAN can provide end –user access to remote information resources (Internet, etc.) through communications software and network connections.

Library online catalog systems or online integrated library management systems are considered as the second type of network systems in libraries, and it is also categorized as intranet.(14)p.2 This type of network systems handles traditional

library functions such as circulation, interlibrary loan, cataloging, acquisitions, serials controls and online public access computer (OPAC). These are centralized network systems. They provide various libraries bibliographic information from local, regional and remote databases through a local host (usually minicomputer or mainframe based) depending on the server's network capabilities and the system's capacities.

The end-users interface with these systems can be hardwired dumb terminals or microcomputers through LAN.

The third one is Wide area network (WAN) based systems. These systems communicate with internet through Gopher, World Wide Web, WAIS, and other Internet index tools. Various servers with different functions such as Gopher, Web, E-Mail, File Transfer Protocol (FTP) and Point-to-Point Protocol 1 (PPP) or Serial Line Internet Protocol (SLIP), connect end-user workstations to the Internet for universal information resources provided by information highways such as the evolving National Information Infrastructure (NII) and the Internet/National Research and Education Network (NREN). WAN based network information systems have been the most important systems for network literacy. Based on client/server architecture of network systems, all these three types of network systems can be interactively connected so as to provide various networked information to the end users.<sup>60</sup>

### **3.2.6.1 Networked information in libraries**

Different from the traditional print collections and AV materials, all networked information is in electronic or digital form. Also, networked information must be delivered and accessible using computerized and networked facilities such as microcomputers, dumb terminals or other electronic or telecommunication devices in networked environment.

Networked information can be categorized by their media type, formats, host systems, the way to approach information, usage in subjects, information providers/producers, or the target end user groups. Categorization of networked information will be helpful in designing educational programs for network literacy.

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<sup>60</sup> Chengren Hu, "Network literacy: new task for librarians on user education". -Wisconsin: (1996), p.2

The magnetic media (computer data tapes, Audio/video tapes, computer disks and drums, etc.) and laser optical media (CD-ROMs) are the most important net-worked information media.

The formats of networked information on multimedia involve electronic bibliographic citations, text files (including full text of electronic publications data files, graphics, full-images and audio/video digital forms. All types of computers including CD-ROM devices (drives, towers and Jukeboxes) are possible host systems loaded information for network access.

Users can access net-worked information by microcomputers or terminals through hardwired LAN, or Internet WAN, or telecommunication data/voice lines with a voice/fax/modem to in/out.

The networked information from LAN or the Internet is local computer based databases and/or CD-ROM based information. It can be easily protected through security systems.

As for information from WAN-Internet, it is world wide information in different formats with different media, from different owners and loaded in different host systems, and it is hard to be secured.

Like the traditional information, networked information covers all subject information can be provided in electronic forms by different vendors, database producers, electronic publishers' involving government agencies, non-profit producers, professional associations or organizations, and various commercial companies.

### **3.2.6.2 Network literacy for library users**

Network literacy for library users consists of two aspects: knowledge of net-worked information and skills to locate, select, evaluate and use the networked in-formation. Knowledge of networked information is:

- a. To recognize the range and uses of global networked information resources and services;

- b. To understand the role and use of networked information in problem solving and in performing basic life activities; and
- c. To know the system used by which networked information is created, managed and made available <sup>61</sup>(14)

The skills include:

- a. To define information needed for specific purpose;
- b. To locate information needed from networks with efficient information retrieval methods, skills and tools;
- c. To select and evaluate information gained from networked information on given topic;
- d. To manipulate and organize networked information with other resources to enhance its values;
- e. To use, analyze and present networked information for problem solving and life-long learning.

To acquire network literacy as defined above, users should first of all possess other basic literacy

- a. Traditional notion of literacy- to read and write;
- b. Computer literacy- to understand and operate computers which are interfaces between networked information and end-users;
- c. Media literacy to understand different media storing networked information and use them; and
- d. Traditional information literacy is to locate, select, evaluate and use of information effectively.

### **3.2.6.3 Roles for librarians in a networked information environment**

In a networked information environment, librarian's role becomes "more expansive and complex because of technological advances in information handling as well as information users' demands for more efficient and complex information de-livery". In addition to the traditional library services based on the traditional print and AV resources, librarians are now information professionals managing, retrieving, analyzing, organizing and serving networked information to information consumers in

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<sup>61</sup> MacCluren Charles R. "Network literacy: a role of libraries?" " Information Technology and librarie, (Vol. 13. (2), June 1994): p.119

an information-driven society. Librarians are asked how to use information rather than just retrieve it, and, are asked to assist and train users to locate, evaluate and use information effectively as information navigators rather than traditional bibliographic instructors. Librarians act not only as “the intermediaries” to assist in connection users with networked resources, but further as partners with teachers to educate the target groups for network literacy. To retain their professional credibility, librarians must enhance themselves to understand and manage the complexities of networked information. Librarians must assume a leadership role in educating the community about the impact of information and network technology on teaching, learning, effectively working and productively living in an information age.

#### **3.2.6.4 Network literacy for librarians**

As educators of library users on network literacy, librarians must first acquire network literacy themselves. That is, librarians should be conversant with course-ware and networked information resources, and possess both knowledge and skills needed in a networked environment. Besides the knowledge of and skills in networked information described above as library users’ network literacy, librarians should further be:

- a. Knowledgeable in globally recognizing organizing and serving networked information resources and services.
- b. Knowledgeable in net-worked information in different subject fields to match the information needed with the problem solving;
- c. Knowledgeable in creating, designing, organizing instructional programs for library users for cooperative with teachers and computer/network specialists for network literacy curriculum;
- d. Familiar with different network systems and technology with different networked information available;
- e. Comfortable with network technology and computer technology related to information resources and services;
- f. Knowledgeable in developing networked information resources and services;

- g. Skillful in operating computerized interfaces and other network facilities to access, use and process networked information (microcomputer operations, modems, multimedia device, software applications, etc.); and
- h. Knowledgeable in database management, system analysis and evaluation as well as project management for information services. The way for librarians to become self-literate for network literacy could be considered as:
  - a. Professional education from library and/ or other professional schools as information professionals;
  - b. Various training on media, computer, and network systems from continuing education, workshops, seminars, vendor training sessions, and conferences;
  - c. Working on information services to enhance network literacy through hands on practices; and
  - d. Self-learning through readings, professional conferences, networked information, and other self-learning channels.

### **3.2.6.5 User education on network literacy**

For librarians providing instruction in user education on network literacy, there are three elements that are different from traditional bibliographic instructions.

First, librarians should organize and design an efficient teaching environment including facilities and select a suitable teaching method to provide instructional programs on network literacy to users. Networked information must be based on a networked environment. To setup physical equipment or facilities for network training should involve collaboration with computer/network specialists,. And also it should be based on the existing library network systems. In the University of Wisconsin-Whitewater, there is a computer lab (called Bibliographic Instruction Lab) with 21PCs linked to a Novell Netware LAN. All computers can access CD-ROM LAN databases, Internet (both Gopher and WWW) and library online cataloging system (NOTIS, run by an IBM mainframe) through software in LAN server and campus network backbone. Students can follow instructor step-by-step and have hands-on practice models, guidelines and principles for instruction methods on



electronic or networked information, such as University of Arizona Library's Model for teaching Internet,<sup>62</sup>

RASD's Electronic Information Sources: Guidelines for training Sessions,<sup>63</sup> "Five Principles for Effective Information Literacy instruction" by Ross Todd<sup>64</sup>, and Brandon University Library in Manitoba Canada offering new learning processes<sup>65</sup>

In summing up, the methods for network literacy instruction could be:<sup>66</sup>

- a. Classroom presentation and lectures with computer demonstration;
- b. Workbooks and other printed texts (System and /or database manuals) from learner to practice with a networked terminal;
- c. Multimedia and computer assisted/aided instructional programs (CAI) such as kiosk programs, computer programmed projects and audio/video instruction programs;
- d. Point-of use signage;
- e. Individual instruction or counseling; and
- f. Electronic user guides in HTML format with full text and /or full image, published on the WWW

The University of Wisconsin-Whitewater has video tapes created for how to use email on Internet and how to create Web home page, printed manuals for Internet guides, HTML formatted CD-ROM database guides and Online Cataloging System guide in library's network/computer specialists for networked information. Also to established additional library communication channels is a good way for distributing network literacy such as through library newsletters library guides, reference desk services, individual consultation and electronic information combined with teachers' curricula.<sup>67</sup>

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<sup>62</sup> Greenfield, Louise, Gellman, Jennalyn and Beth Brin "A Model for Teaching the Internet: Preparation and Practice." *Computer in Libraries* (March 1996): pp.22-25.

<sup>63</sup> Reference and Adult Services Division (RASD), ALA. *Electronic Information Sources: Guidelines for training Sessions*, Posted in August 1995. p.8

<sup>64</sup> Todd, Ross J "Information Literacy: Philosophy, Principles, and Practice." *School Libraries Worldwide* 1:1(1995): 54-68

<sup>65</sup> Bazillion, Rechar J. & Braun, Connie. "Academic Library Design: Building a 'Teaching instrument'." *Computers in Libraries* 14:2 (Feb. 1994):1-5.

<sup>66</sup> RASD, p.2

<sup>67</sup> Kovacs, Diane K. and et al. "A Model for Planning and Providing Reference Services Using Internet Resources". *Library Trends* 42:4(spring 1994): 638-47

Second, librarians need to determine what course contents should be provided in the instruction. The contents for network literacy instruction differ in terms of systems, purposes, target groups and subjects of networked information. In general, the basic contents of network literacy instruction should be:

- A. Computer operation knowledge and skills, (which constitute computer literacy), such as how to operate OPACs or microcomputer workstations, how to use modem with communication software to dial in systems and to download files, how to use CD-ROM devices, etc.
- B. Network knowledge such as some basic concepts on networking technology, overview of library network environment, different network systems' features and usage of LAN and online cataloging systems, WAN especially Internet related Gopher, WWW, Email, FTP functions, CD-ROM databases, necessary functions and commands to use networking systems such as login/out;
- C. Multimedia knowledge and skills for graphic/image resources, sound information resources, and other devices such as scanner with OCR applications;
- D. Networked information available in network systems, in their contents of databases (in subjects), coverage and formats, structure of files and records, information intended market for users and uses, information delivery services, types of information such as utilities and index tools (yahoo and Lycos in WWW, Veronica and jewels in Gopher), resource guides and subject guides, bibliographic lists and full text/full-image electronic publications, email discussions groups (listserv) and training resources of different purposes;
- E. Information retrieval skills such as Boolean logic searching; and
- F. Standards and methods to evaluate information results for effective use of information.

Third is combine library information literacy training programs with other educational programs, such as teachers' course offering in academic and school libraries, public education programs in public libraries, special information work-shops in special libraries, and computer/network specialists workshops on computer/network literacy. The cooperation between librarians and users, between librarians and other educators will be important. The instruction for computer literacy and network technology can

be provided by network/computer specialists. Librarians focus on instructions on networked information. Librarians can cooperate with teachers to create network literacy programs in specific subject fields as needed in their courses. The teacher can also consult with librarians to update their courses for networked information needed.

User education is a major task for librarians to serve users more effectively. The contents and teaching methods for user education vary with user's needs social changes. User education on network literacy is different from traditional bibliographic instructions because of the high-tech based networked information. It requires librarians to undertake a new task, which calls for not only changes in instructional contents and methods but more important the librarians must make themselves network literate./ Librarians must recognize this change and embrace it. With the new task in a networked information age, librarians will be also to provide greater contributions to society than ever before.

### **3.3 Library standards for Information Literacy**

Library literacy is the skills acquired in library orientation and user education. The library should recognize that the development of information literacy skills in students and researchers. This collaborative process between the library staffs and the users undertakes to provide appropriate training and assistance. The Council of Australian University Librarians (CAUL) has recently endorsed seven information literacy standards.

*Standard one: The information literate person recognizes the need for information and determines the nature and extent of the information needed.*

The Library will teach students:

- How to identify key concepts and terms relating to the research topic or information need
- How to define the scope and scale of information required
- About variety and types of information sources relevant to their subject discipline, including: books, journals, encyclopedias, dictionaries, statistics, data books, newspapers, video and sound recordings, media broadcasts, websites, unpublished sources, people, etc. Print, electronic and audiovisual formats. About differences

in content and function of types of information sources relevant to their subject discipline

*Standard two: the information literate person accesses needed information effectively and efficiently:*

The library will teach students:

- About the range of information access tools in their subject area, in print and electronic format, including library catalogues, indexes and bibliographies, citation and full-text databases
- How to select the most appropriate access tools and use them effectively About the role of library staff as sources of expertise in the information gathering process
- How to devise and carry out effective search strategies, including the use of Boolean operators, truncation, thesauri and field searching in electronic database and search engines . Internet searching techniques including the use of search engines, directories and specialized subject gateways
- Internet searching techniques including the use of search engines, directories and specialized subject gate ways.
- About the variety of information resources in organizations and libraries external to

*Standard Three: The information literate person evaluates information and its sources critically and incorporates selected information into their knowledge base and value system*

The library will teach students:

- How to critically evaluate search results
- How to revise their information search strategy
- How to evaluate sources for authority, validity, bias and accuracy

*Standard Four: The information literate person classifies, stores, manipulates and redrafts information collected or generated*

The library will teach students:

- How to identify and record the basic elements of a bibliographic citation
- How to cite correctly the information sources they have used
- How to use a nominated bibliographic software package e.g. ProCite, EndNot

*Standard Five: The information literate person expands, reframes or creates new knowledge by integrating prior knowledge and new understandings individually or as a member of a group*

The Library will assist students with tools they may use to support this process by:

- Providing basic troubleshooting assistance with IT applications available at library workstations
- Providing training and basic troubleshooting assistance with a nominated bibliographic software package
- Providing resources (style guides, etc.) on techniques of presenting and communicating information

*Standard Six: The information literate person understands cultural, economic, legal and social issues surrounding the use of information and access and uses information ethnically, legally and respectfully.*

The Library will teach students about:

- Acknowledging sources and avoiding plagiarism
- The need to comply with copyright, intellectual property and privacy laws
- The need to comply with computer use policy
- Identifying resources which emphasis cultural differences

*Standard Seven: The information literate person recognizes that lifelong learning and participative citizenship requires information literacy*

The library will promote:

- The Library will promote lifelong learning through the provision and promotion of library services to alumni of the University.

American Library Association through its American Association of School Libraries division in conjunction with the Association for Educational Communications and Technology published the following national standards for students learning (19)

*Standard 1: The student who is information literate accesses information efficiently and effectively.*

*Standard 2: The student who is information literate evaluates information critically and competently.*

*Standard 3: The student who is information literate uses information accurately and creatively.*

*Standard 4: The student who is an independent learner is information literate and pursues information related to personal interests*

*Standard 5: The student who is an independent learner is information literate and appreciates literature and other creative expressions of information.*

*Standard 6: The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation.*

*Standard 7: The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society*

*Standard 8: The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.*

*Standard 9: The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information*

### **3.4 Models of information literacy**

Concept of information literacy as a subject of study includes:

- Models of information literacy
- Models of information behavior (different approaches to searching, browsing, interpersonal communication etc.)
- Characteristics and types of information sources;
- Search formulation and strategy, and Information Retrieval

- Information economy & society: issues of information ownership and transfer, censorship, presentation/publication of information, ethics in the use of information etc.
- Critical thinking, including critical thinking in relation to information sources and services<sup>68</sup>

The most frequently mentioned model is that of Christine Bruce. She has published a book ([1997a](#)), there is a summary of her ideas on her web site ([Bruce 1997b](#)), and she has published numerous articles on the topic (e.g. [Bruce 1999](#)). She used the phenomenographic method (involving in-depth interviews focusing on a few key questions) to identify seven different ways of experiencing information literacy: the "Seven faces of information literacy".

This was qualitative research, carried out with higher education professionals in Australia, and Bruce states that different cultural/ professional groups may exhibit a different range of conceptions. However, the work has raised strong interest with people in different countries. The faces are not seen as a way of "pigeonholing" people into a particular face, but are better used to help people reflect on their own approach to information literacy, understand other people's differing approaches, and become more information literate themselves.<sup>69</sup>

Christine Bruce together with Stuart Boon, carried out a three year study, funded by the Arts and Humanities Research Council, into UK academics' conceptions of information literacy (and pedagogy for information literacy) in four disciplines: Chemistry, English, Marketing and Civil Engineering. We also used the phenomenographic approach. We identified different conceptions of information literacy in each discipline ([Webber et al, 2005](#)):

### **In Marketing, information literacy as:**

1. Accessing information quickly and easily to be aware of what's going on;
2. Using IT to work with information;
3. Possessing a set of information skills and applying them to the task in hand;

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<sup>68</sup> Webber, S., Boon, S. and Johnston, B. "A comparison of UK academics' Conceptions of information literacy in two disciplines: English and Marketing," "Library and information research, (Vol. 29(93), 4-15. 2005

<sup>69</sup> Bruce, Christine. "The Seven faces of information literacy". -Adelaide: Auslib Press

4. Using information literacy to solve real-world problems;
5. Becoming a critical thinker; and
6. Becoming a confident, independent practitioner.

**In English, information literacy as:**

- 1) Accessing and retrieving textual information;
- 2) Using IT to access and retrieve information;
- 3) Possessing basic research skills and knowing how and when to use them; and
- 4) Becoming confident, autonomous learners and critical thinkers.

**In Chemistry, information literacy as:**

- 1) Accessing and searching chemical information;
- 2) Mastering a chemist's information skill set;
- 3) An essential part of the constitution, creation and communication of knowledge

**In Civil Engineering, information literacy as:**

- 1) Accessing and retrieving data and information;
- 2) Applying and using information;
- 3) Analysis and sense making;
- 4) Creating, and incorporating information into, a professional knowledge base

The above conceptions of information literacy were identified through research. The following drew on research, but were formulated by groups or individuals.

The Standing Conference of National and University Libraries ([SCONUL](#)) [set up a Task Force on Information Skills](#), which identified produced a "7 pillars" model of information literacy (see [Standards](#) page.)<sup>70</sup>

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<sup>70</sup> Society of College, National of University Libraies (SCONUL) 1999  
 Information skills in higher education: a SCONUL position paper, London: SCONUL  
 This proposer a 'seven pillar' model for information literacy  
<http://www.sconul.ac.uk/activities/inflit/papers/sevenpillars.html>.



Finally, a model which seems quite widely used in the USA to teach information skills is the [Big6 information problem-solving approach](http://www.big6.com) (Eisenberg & Berkowitz, 2001). This bases learning around the six steps:<sup>71</sup>

1. Task Definition
2. Information Seeking Strategies
3. Location and Access
4. Use of Information
5. Synthesis
6. Evaluation

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<sup>71</sup> Eisenberg, Michael B. and Berkowitz, Robert E. (2001) The Big 6 information problem - solving approach, Richmond Beach: Big 6. <http://www.big6.com>.

## **CHAPTER FOUR**

### **4. Research Methodology**

Research is the process of a systematic and in-depth study or search of any particular topic, subject or area of investigation backed by the collection, compilation, presentation and interpretation of relevant details or data. It is a careful search of inquiry into any subject matter which is an endeavor to discover or find out valuable fact, which will be useful for further application or utilization.<sup>72</sup>

#### **4.1 Research Design**

Research design is a plan and strategy of investigation conceived for the collection and analysis of data. It presents a series of guide posts to enable the researcher to progress in right direction in order to achieve the goal. The design may be a specific presentation of the various steps in the research process. For this research work, students of MLISc and professional librarians of Kathmandu valley were studied and were taken for case studies so that it could reveal the information literacy in this scenario. As well questionnaire and observation methods were taken

#### **4.2 Population**

The population of study was the students of Central Department of Library and Information Science, TU, Kirtipur and professional librarians of Kathmandu valley whoever have involved in this profession.

#### **4.3. Sampling Procedure**

It was planned to study over 20 % of total population as random sampling. The total population was students of MLISc, TU and professional librarians of Kathmandu valley more than 350 in number.

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<sup>72</sup> Wolff, Howard K. and Pant, Prem R. "Social science research and thesis writing ." -4<sup>th</sup> ed. – Kathmandu: Buddha AcademicPublisher, 2005.p.4.

#### **4.4. Data Collection Procedure**

Data were collected from the following methods

##### ***i. Questionnaire***

Questions for students and professionals were distributed. The questionnaires were given hand-to-hand to users and professionals. The questionnaires were structured and close ended type and were mixed for both in one format.

Altogether 100 questionnaires (for students and professionals) were distributed. Only 70 respondents were returned back.

Questions distributed to students of MLISc and professionals are attached in appendix 1.

##### ***ii. Observation***

After observing in these fields and libraries where the professionals are involved, the researcher had found the present status of information literacy.

#### **4.5. Data Analysis Procedure**

The data in the form of questionnaire have been collected, edited, coded, tabulated and classified for data analysis. All those collected data was aggregated into a form that presented the summary of answers from respondents. Primary data taken from various libraries are also analyzed. Processed data are interpreted in the form of tabulation. The result of analysis could be found in tables and figures making references relevant to the research relations studied, and drawing conclusion about them.

## CHAPTER FIVE

### Analysis and Presentation of findings

Data are collected from the students of MLISc students and the professionals. The responses of the students and professionals are presented and shown in the following tables and figures. It is hoped that the tables sufficiently and correctly represent those all responses which are classified on the basis of the questions given in the questionnaire with their relevancy.

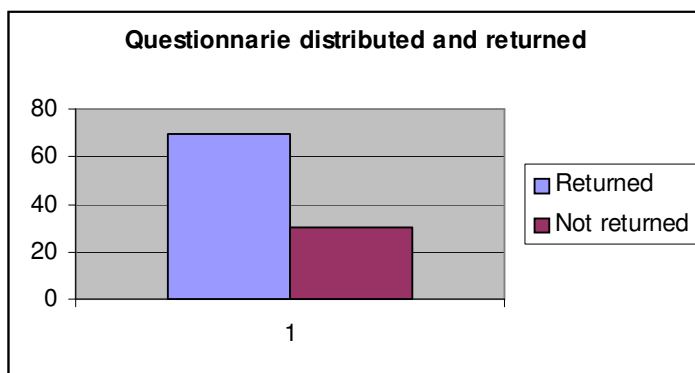
The number of questionnaire distributed and returned is given in the table number 1.

**Table number 1. Questionnaire distributed & returned**

Number of questionnaire					
Distributed	Returned		Unreturned		Total
	Number	%	Number	%	
100	70	70	30	30	100

Source: Field Survey

This table shows that seventy (70%) questionnaires were returned with answers and thirty (30%) questionnaires were not returned among 100 distributed questionnaires. It is shown in figure number 1 clearly.



**Figure number 1**

## A. Personal information

Question number A.2 was to know about the person either he / she is male or female which is shown in table number 2.

**Table number 2 Gender**

Gender		
Respondents	Number	%
Male	44	63
Female	26	37
Total	70	100

Source: Field Survey

It seems that forty four (63%) of the respondents are males and twenty six (37%) respondents are females among the total 70 respondents.

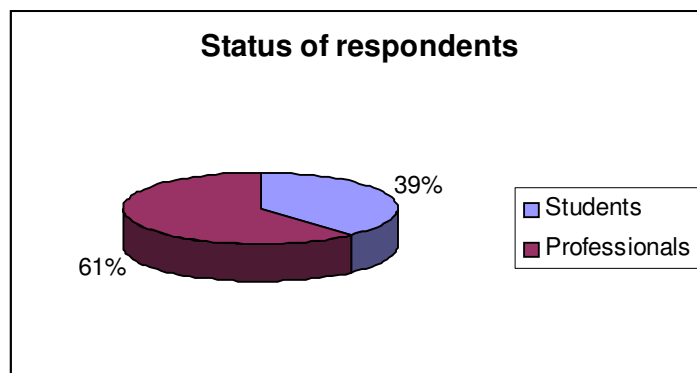
Question number A.7 was developed to know the status of respondents which is given in table number 3.

**Table number 3 Status of respondents**

Status of Respondents		
Status	Number	%
Students	27	39
Professionals	43	61
Total	70	100

Source: Field Survey

This table shows that twenty seven (39%) are students and forty three (61%) are professionals among 70 respondents. Figure number 2 shows it clearly.



**Figure number 2**

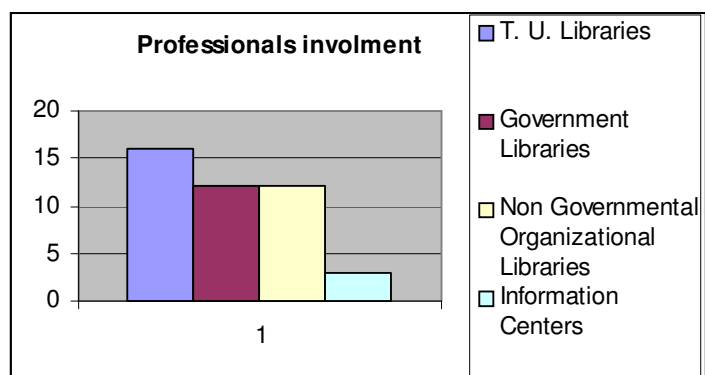
Question number A 8 was developed to know the professional involvement of respondents which is shown in table number 4

**Table Number 4. Professional involvement**

Involvement in		
Libraries	Number	%
T. U. Libraries	16	37
Government Libraries	12	28
Non Governmental Organizational Libraries	12	28
Information Centers	3	7
Total	43	100

Source: Field Survey

This table shows that sixteen (37%) are involved in TU libraries, twelve/twelve (28%/28%) are involved in government libraries and non government organizational libraries and three (7%) are involved in information centers. It is shown in figure number 3



**Figure number 3**

## **B. Information literacy**

Question B.1 was to know about either information personnel should be information literate or not to retrieve the information successfully which is shown in table number 5.

**Table number 5. Personnel's response for information literate**

Need of Information literate		
Respondents	Number	%
Yes	69	99
No	1	1
Total	70	100

Source: Field Survey

This table shows that sixty nine (99%) respondents have told the information scientists should be information literate and rest against it.

Question number B 2 was developed to know the views of respondents about what should they possess the qualities to become information literate which is given in table number 6.

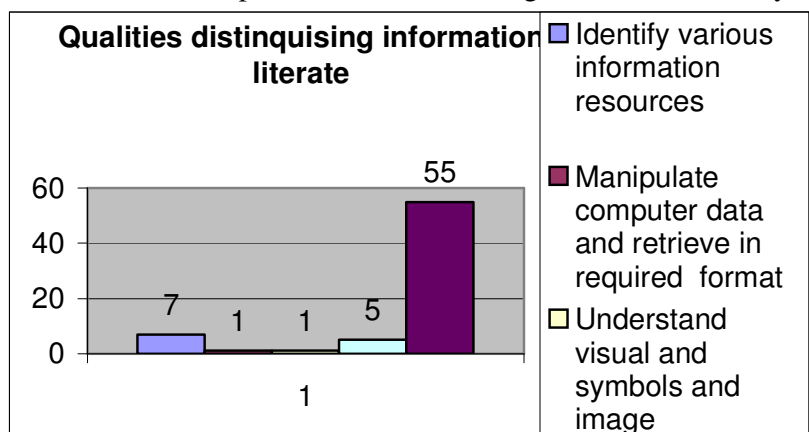
**Table number 6 Qualities to be possessed to become information literate.**

Qualities		
	Number	%
Professionals should		
Identify various information resources	7	11
Manipulate computer data and retrieve in required format	1	1
Understand visual and symbols and image	1	1
Be perfect in search strategies	5	7
All the above	55	80
Total	69	100

Source: Field Survey

This table shows that seven (11%) have told that they should identify various information resources, one / one (1%/1%) have told that they should manipulate computer data and retrieve in required format; and understand visual and symbols and images five(7%)have told that they should perfect in search strategies and fifty five (80%) have told for all the above.

In total fifty five (80%) have told they should have all the qualities to become information literate person. It is shown in figure number 4 clearly.



**Figure number 4 Qualities to be possessed to become information literate.**



## C. Library literacy

Question number C.1 was developed to find out the users' response whether catalogue is an essential tool for searching information which is shown in table number 7.

**Table number 7: Catalogue as a tool for searching information**

Essential of catalogue		
Respondents	Number	%
Yes	66	94
No	4	6
Total	70	100

Source: Field Survey

This table shows that 66(94%) of the total respondents have thought that catalogue is the essential tool for searching information in the library whereas 4(6%) of the total respondents have thought it is not.

Question number C 2 was devised to know the view of respondents about which catalogue is better for access to get to the required information.

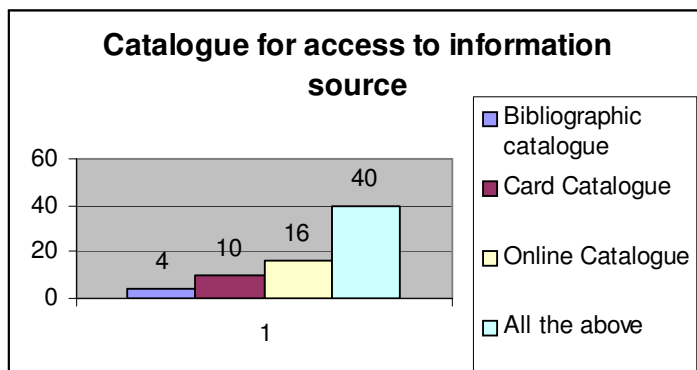
**Table number 8: Users mostly preferred types of catalogue for information retrieval**

Catalogue for access to required information		
Responses	Number	%
Bibliographic catalogue	4	6
Card Catalogue	10	14
Online Catalogue	16	23
All the above	40	57
Total	70	100

Source: Field Survey

This table shows that 4(6%) of the respondents have cited that they prefer using bibliographic catalogue for retrieving information, 10 (14%) have cited they choose

card catalogue, 16(23%) have cited that they use online catalogue. The study shows that 40(57%) respondents have told that they choose all the above type of catalogues for searching information. It is shown in figure number 5 clearly.



**Figure number 5**

Question number C 3 was developed to find out whether the user's orientation was essentially necessary or not to make people information literate.

**Table number 9: User's orientation essential for making people information literate**

Essential user orientation		
Respondents	Number	%
Yes	70	100
No	0	0
Total	70	100

Source: Field Survey

It is clear from the table number 9 that all of the respondents have felt that user orientation is essential for making the people information literate as 100% of the respondents have given positive response.

Question number C 4 was developed to know particularly what type of user orientation do the professionals prefer to give to the users of their libraries.

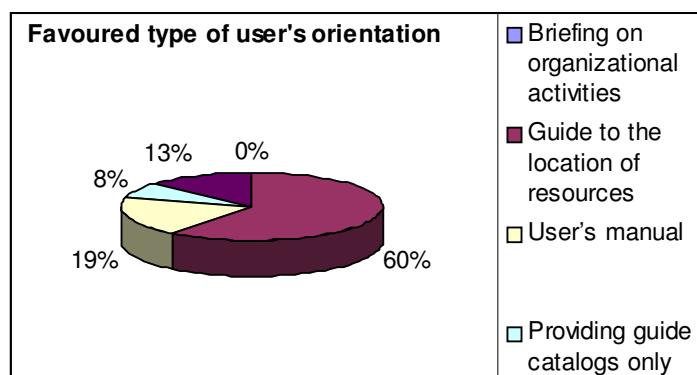
**Table number 10: Preferred type of users' orientations**

Types of users orientation		
Responses	Number	%
Briefing on organizational activities	17	24
Guide to the location of resources	32	46
User's manual	10	14
Providing guide catalogs only	4	6
All the above	7	10
Total	70	100

Source: Field Survey

The above table number 10 shows the data for type of user education that is most preferred by the professional to give to their particular users. The data shows that 17(24%) of the respondents have felt that briefing of the organizational activities should be given, 32(46%) have felt that the guide to the location of resources should be given to the users, 10(14%) have told that user's manual as the best option for the users education whereas 4(6%) have felt that providing guide catalogs as the best way of user education further 7(10%) have responded that all the above should be given in user's education.

This data shows that guide to the location of resources is as the best type of users education which is shown clearly in the figure number 6



**Figure number 6**

Question number C 5 was asked to learn if knowledge of abstracting and indexing service should be given to the users to make them information literate or not.

**Table number 11: Abstracting and indexing as a part of information literacy**

Abstracting and indexing as a part of information literacy		
Respondents	Number	%
Yes	68	97
No	2	3
Total	70	100

Source: Field Survey

The above table number 11 shows that majority of the respondents i.e. 68(97%) have felt that abstracting and indexing as the part of information literacy which should be given to the users to make them information literate whereas 2(3%) have responded that it is not necessary aspect in making users information literate.

Question number C 6 was devised to further learn about the types of abstract and index that is better for the users to know so they could become information literate.

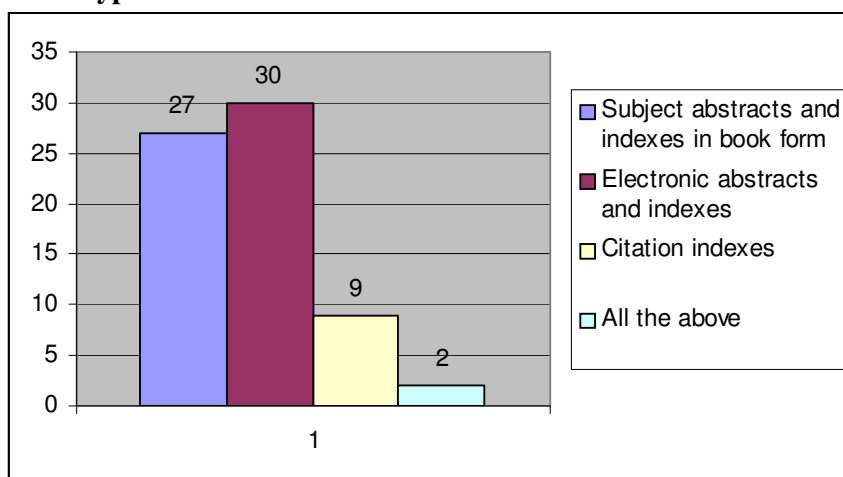
**Table number 12: Better type of abstracts and indexes to make users information literate**

Better types of abstract and indexes		
Responses	Number	%
Subject abstracts and indexes in book form	27	40
Electronic abstracts and indexes	30	44
Citation indexes	9	13
All the above	2	3
Total	68	100

Source: Field Survey

The above table number 12 shows that 27(40%) professionals have felt that the subject abstracts and indexes in book form are the best abstracts and indexes services that makes users information literate, 30(44%) professionals have felt that electronic abstracts and indexes are the better services, 9(13%) professionals have felt that citation indexes are the better abstracts and indexes services and 2(3%) professionals have felt that all the above form of abstracts and indexes services are best to make users information literate. Figure number 7 shows it clearly.

**Better type of abstracts and indexes to make users information literate**



**Figure number 7**

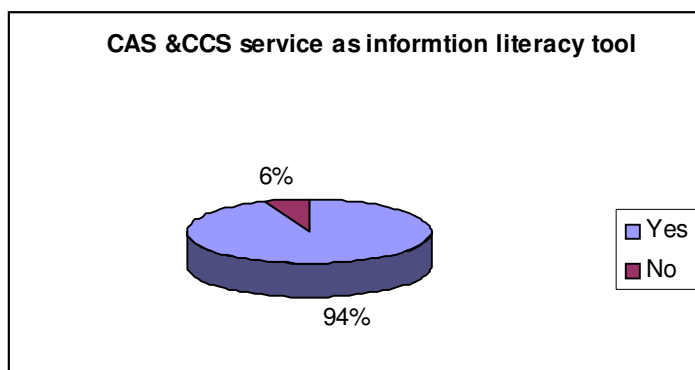
Question number C 7 was developed to learn whether current content services (CCS) and current awareness services (CAS) help additionally in making users information literate or not.

**Table number 13: CCS and CAS services as information literacy tool.**

CCS and CAS services as part of information literacy		
Respondents	Number	%
Yes	66	94
No	4	6
Total	70	100

Source: Field Survey

Above table number 13 shows that about 66(94%) of the respondents have told that current content services and current awareness services also help in making users information literate. Whereas 4(6%) have told that they do not contribute in making users information literate. It is shown in figure number 8.



**Figure number 8**

Question number C 8 was devised to find the answer if the CCS and CAS services contribute in making the users information literate then at what frequency are these services to be provided to the users. It is reflected in the table number 14 below.

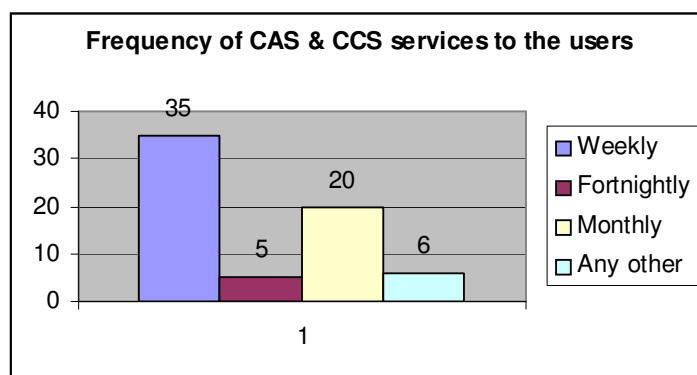
**Table number 14: Frequency of CCS and CAS services to the users**

Frequency		
Responses	Number	%
Weekly	35	53
Fortnightly	5	8
Monthly	20	30
Any other	6	9
Total	66	100

Source: Field Survey

Table number 14 shows that 35(53%) of the respondents have cited that the CAS and CCS services should be given weekly to the users, 5(8%) have told it should be given fortnightly, 20(30%) have told it should be given monthly and 6(9%) have responded on any other.

It is concluded from the result that for making users information literate CAS and CCS service plays an additional role and such service should be provided on weekly basis for which the response is 53 percent. Figure number 9 shows it clearly.



**Figure number 9**

Question number C 9 was developed to know the role of a reference service on creating an information awareness campaign.

**Table number 15: Role of reference service as creator of information awareness**

Reference service as creator of information awareness		
Respondents	Number	%
Yes	69	99
No	1	1
Total	70	100

Source: Field Survey

The above table number15 shows that 69(99%) of the respondents have taken reference service as a part of making users informatively aware whereas 1(1%) has viewed unlike than others.

Question number C 10 was developed to know which type of reference service the respondents feel better in making users informatively aware.

**Table number 16: Better type of reference services for making information literate**

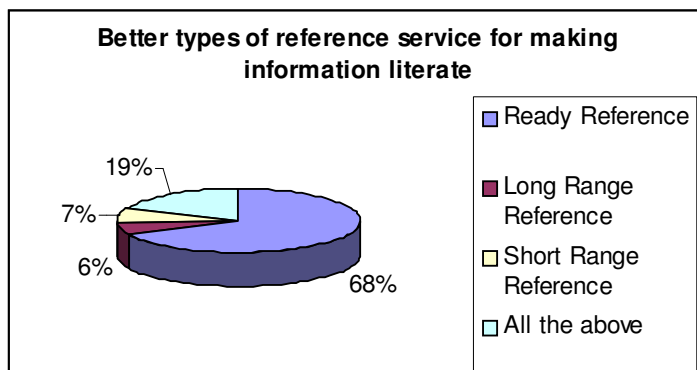
Reference Services and their type		
Responses	Number	%
	47	68
Ready Reference		
Long Range Reference	4	6
Short Range Reference	5	7
All the above	13	19
Total	69	100

Source: Field Survey

The above table number 16 shows that 47(68%) of the respondents have told that ready reference as the better type of reference service for making users information literate, 4(6%) have responded as long range reference as better type of reference service, 5(7%) have responded short range reference as the better type of reference



service and 13(19%) have told that all the above reference services as a better type of reference service to make users informatively literate. It is shown in figure number 10.



**Figure number 10**

## **D. Tool literacy**

Question number D 1 was developed to know either the respondents are aware of tool literacy or not.

**Table number 17: Knowledge about tool literacy**

Knowledge about tool literacy		
Respondents	Number	%
Yes	56	80
No	14	20
Total	70	100

Source: Field Survey

The above table number 17 shows that 56(80%) of the respondents have had knowledge about tool literacy whereas 14(20%) of the respondents have not had.

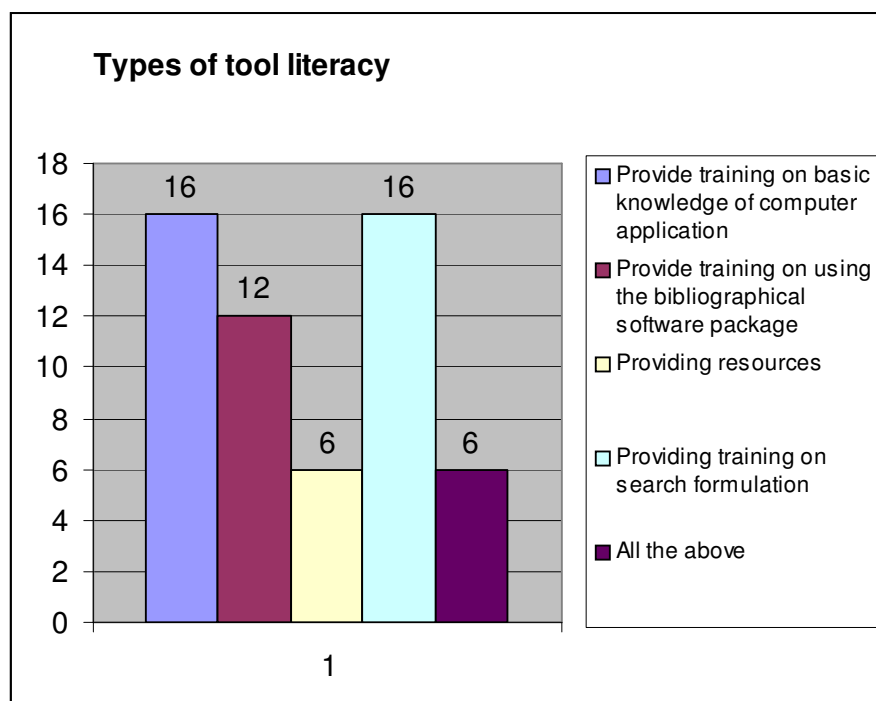
Question number D 2 was developed to know about the essential type of tool literacy.

**Table number 18: Types of tool literacy**

Essential types of tool literacy		
Responses	Number	%
Provide training on basic knowledge of computer application	16	29
Provide training on using the bibliographical software package	12	21
Providing resources	6	11
Providing training on search formulation	16	28
All the above	6	11
Total	56	100

Source: Field Survey

The above table number 18 shows that 16(29%) of the respondents have told that users should be provided with basic training or knowledge about operating computers to make them tool literate, 12(21%) have responded training on operating the bibliographical software package should be given to the users to make them tool literate, 6(11%) have told users should be provided with resources like style guides to make them tool literate and 16(11%) have told that by providing training on search formulation they could become tool literate whereas 6(11%) have responded that all the above points should be there to make the users tool literate. Figure number 11 shows it clearly.



**Figure number 11: Types of tool literacy**

## **E. Computer literacy**

This part of the questionnaire was developed to know about the respondents' familiarity with computers.

Question number E 1 was developed to see that how much percent of the total population have personal computer.

**Table number 19 Respondents having own personal computer**

Personal Computer		
Respondents	Number	%
Yes	49	70
No	21	30
Total	70	100

Source: Field Survey

The above table number 19 is to show that 49(70%) of the respondents have their own personal computer whereas 21(30%) of the respondents do not have their own personal computer.

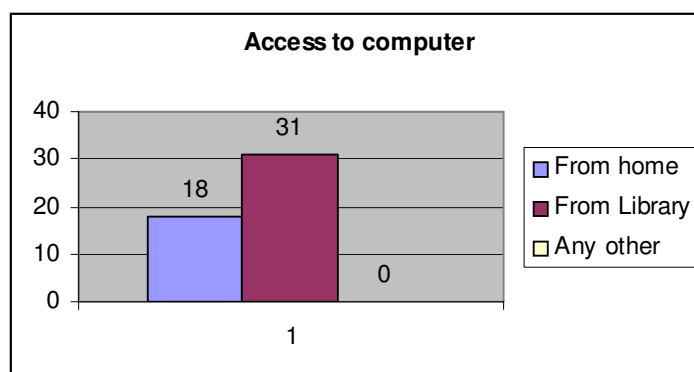
Question number E 2 was developed to find whether all the respondents had access to computer or not.

**Table number 20: Access to computer**

Access to computer		
Responses	Number	%
From home	18	37
From Library	31	63
Any other	0	0
Total	49	100

Source: Field Survey

This table number 20 shows that 18(37%) have accessed to computer from home whereas 31(63%) have accessed to computer at their respective libraries. Figure number 12 is for it.



**Figure number 12**

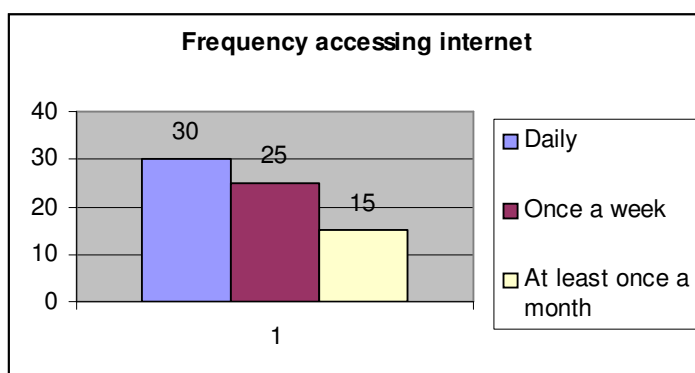
Question number E 3 was developed to know the respondents' access to internet.

**Table number 21: Frequency in using the internet**

Frequency		
Respondents	Number	%
	30	43
	25	36
	15	21
Total	70	100

Source: Field Survey

This table number 21 shows the frequency of using internet among the respondents. 30(43%) of the total respondents have used internet in regular basis (daily), 25(36%) have used the internet once a week and 15(21%) of the respondents have used internet at least once a month. Figure number 13 is for it.

**Figure number 13**

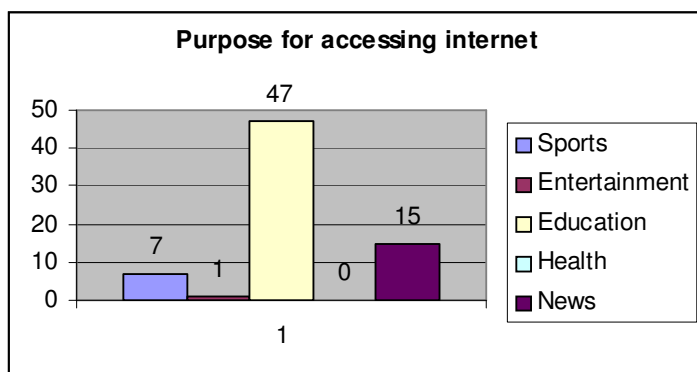
Question number E 4 was developed to find out for what purpose did the respondents use internet for.

**Table number 22: Purpose of using Internet**

Purpose		
Respondents	Number	%
Sports	7	10
Entertainment	1	1
Education	47	68
Health		
News	15	21
Total	70	100

Source: Field Survey

This table number 22 shows that respondents' purpose for accessing internet. 7(10%) have accessed to get information on sports, 1(1%) has accessed for entertainment, 47(68%) have used for education purpose and 15(21%) have used for news in the internet. Figure number 14 shows it clearly.



**Figure number 14**

Question number E 5 was asked to learn about the respondents' search engine usage.

**Table number 23: Use of search engines**

Use of search engines		
Respondents	Number	%
Yes	63	90
No	7	10
Total	70	100

Source: Field Survey

The table number 23 shows that 63(90%) respondents have used search engine to look for information and remaining 7(10%) of the population have not used search engines.

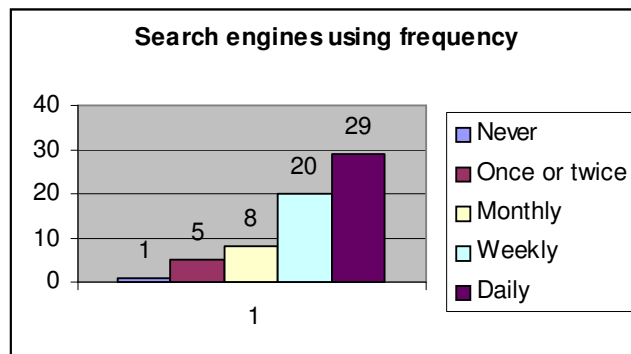
Question E 6 was developed to find the frequency of search engine usage among the respondents that answered positive to the question E5.

**Table number 24: Frequency of using search engines**

Frequency		
Respondents	Number	%
Never	1	1
Once or twice	5	8
Monthly	8	13
Weekly	20	32
Daily	29	46
Total	63	100

Source: Field survey

The above table number 24 states that 1(1%) of the respondents has never used search engines where as 5(8%) have used search engines once or twice, 20(32%) have used search engines weekly and 29(46%) have used the search engines in daily basis. This shows majority of the respondents are familiar with search engines. Figure number 15 is for this.



**Figure number 15**

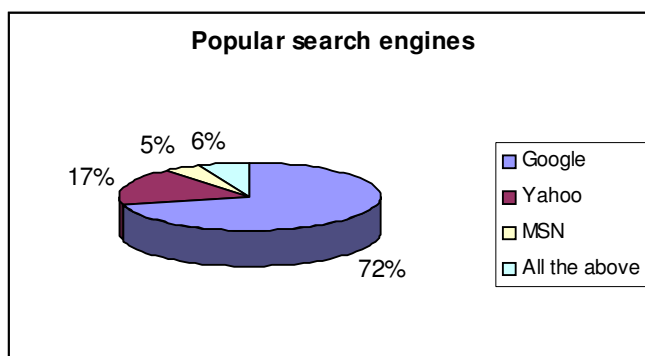
Question E 7 was developed to know which search engines were popular among the respondents.

**Table number 25: Popular search engines**

Popular Search Engines		
Respondents	Number	%
Google	45	72
Yahoo	11	17
MSN	3	5
All the above	4	6
Total	63	100

Source: Field Survey

The above table number 25 shows that 45(72%) of the respondents have used Google search engine, 11(17%) have used Yahoo search engine and 3(5%) have used MSN and 4(6%) have used all of the above search engines while searching for information. Figure number 16 is for it.



**Figure number 16**

Question number E 8 was developed to find out the respondents' views for comfortable using the e-mail as the form to communicate.



**Table number 26: Use of email**

E-mail using Frequency		
Respondents	Number	%
Regularly	31	44
Often	13	19
Sometimes	26	37
Total	70	100

Source: Field Survey

The above table number 26 shows that 31(44%) of the respondents have used email to communicate regularly, 13(19%) have often used email to communicate whereas 26(37%) have used it sometimes to communicate.

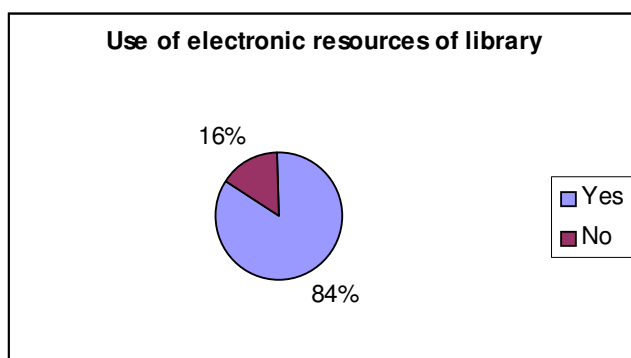
Question number E 9 was developed to find out the respondents' familiarity with library's electronic resources.

**Table number 27: Use of electronic resources of library**

Use of search engine		
Respondents	Number	%
Yes	59	84
No	11	16
Total	70	100

Source: Field Survey

Above table on.27 shows that 59(84%) of the respondents have used library resources whereas 11(16%) of the respondents have not used library's electronic resources. Figure number 17 is for it.



**Figure number 17**

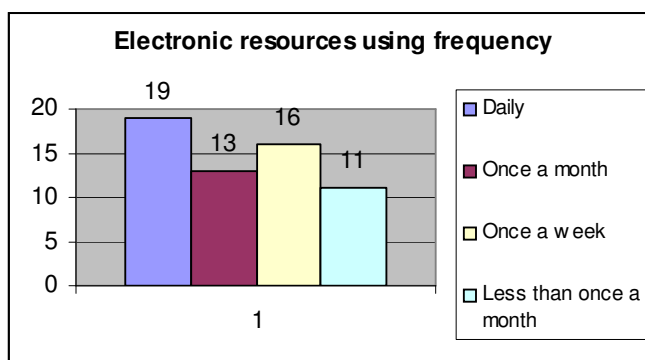
Question number E 10 was further developed to know the frequency of the users of electronic resources among the respondents.

**Table number 28: Frequency of using electronic resources of library**

Frequency		
Respondents	Number	%
Daily	19	32
Once a month	13	22
Once a week	16	27
Less than once a month	11	19
Total	59	100

Source: Field Survey

Above table number 28 shows the data of the frequency in using library's electronic resources. 19(32%) have used the electronic resources daily, 13(22%) of the respondents have used once a month, 16(27%) have used electronic resources once a week and 11(19%) have used the electronic resources less than once a month. It is shown in figure number 18.



**Figure number 18**

Question number E 11 was to find about the most required electronic resources among the different types of resources available.

**Table number 29: Types of electronic resources**

Most required electronic resources		
Respondents	Number	%
EBSCO HOST	29	41
Book Review Index	20	29
Sociological Abstracts	5	7
Academic Search Premier	2	3
Literature Resource Centre	8	11
Any other	6	9
Total	70	100

Source: Field survey

The above table number 29 shows that 29(41%) respondents have used EBSCO HOST electronic resources for retrieving information, 8(11%) have used Literature Resource Centre for retrieving information, 2(3%) have used academic search premier for retrieving information, 20(29%) have used book review index for retrieving information, 5(7%) have used sociological abstract and 6(11%) have used other electronic resources for retrieving information.

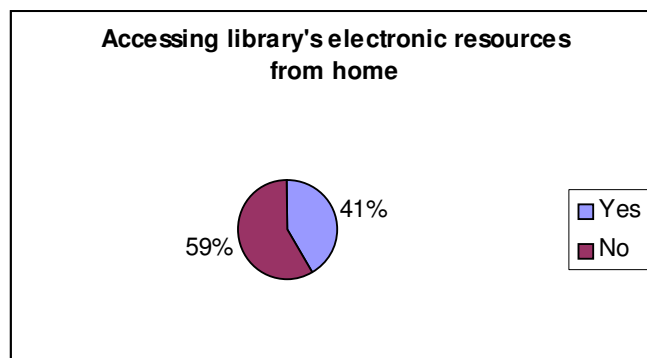
Question number E 12 was developed to find out about the respondents interest of accessing the resources if it could be accessed from home.

**Table number 30: Accessing library's electronic resources from home**

Access to electronic resources from home		
Respondents	Number	%
Yes	29	41
No	41	59
Total	70	100

Source: Field Survey

In the above table it is shown that 29(41%) of the respondents have used library's electronic resources from home if they have known its availability. Whereas 41(59%) of the respondents have not accessed to electronic resources from home.



**Figure number 19**

## **F. Visual literacy**

Question number F 1 was conceived to know the respondents' familiarity with visual literacy and the response is shown in the table below.

**Table number 31: Knowledge about visual literacy**

Knowledge about Visual Literacy		
Respondents	Number	%
Yes	64	91
No	6	9
Total	70	100

Source: Field survey

The table number 31 shows the data about the respondents' knowledge about visual literacy. It shows that 64(91%) of the respondents are familiar with visual literacy they know what comes under the term while 6(9%) of the respondents are unaware of visual literacy.

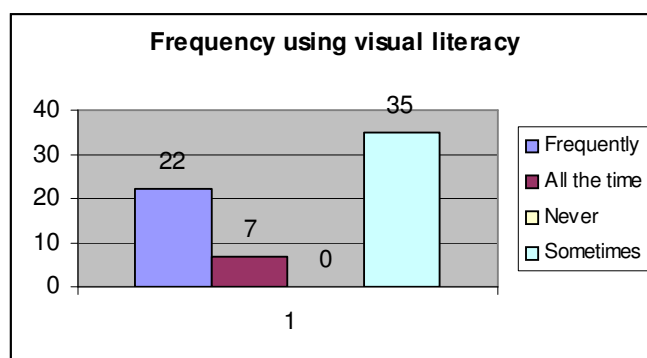
Question number F 2 was further devised to find out the respondents' views on the above question about knowing visual literacy then how frequently do they use it.

**Table number 32: Frequency in using visual literacy**

Frequency		
Respondents	Number	%
Frequently	22	34
All the time	7	11
Never		
Sometimes	35	55
Total	64	100

Source: Field Survey

Table number 32 notifies that respondents i.e. 22(34%) of them frequently have used the visual literacy tool to make users information literate. 7(11%) of the respondents have used it all the time while there is no response in never using it but 35(55%) respondents even having the knowledge of visual literacy only have used it sometimes. Figure number 20 is for it.



**Figure number 20**

Question number F 3 was asked to find out how the visual literacy will help in collecting information and make the users easily information literate.

**Table number 33: Visual literacy as information collecting tool**

Visual Literacy		
Respondents	Number	%
Easy to remember	28	40
Easy to understand	22	31
Convenient		
Appropriate literacy method	20	29
Total	70	100

Source: Field Survey

The table number 33 shows that 28(40%) of the respondents have stated that it is easy to remember, 22(31%) of the respondents have stated that it is easy to understand and 20(29%) have stated that it is an appropriate literacy method that could be given to the users.

So, it is concluded that visual literacy is better tool which is easy to remember, understand and more effective method of literacy.

Question number F 4 was to learn about the most commonly used type of visual literacy among the different type present.

**Table number 34: Commonly used visual literacy tool**

Types of Visual literacy		
Respondents	Number	%
Microfilm	3	4
Video (Tapes)	13	19
CDs	33	47
Photography	21	30
Total	70	100

Source: Field Survey

The table number 34 shows that 3(4%) respondents have commonly used microfilm, 13(19%) respondents have commonly used video, and 33 (47%) respondents have

commonly used CD's and 21 (30%) of the respondents have commonly used photography visual tool to make their users information literate.

## **G. Network Literacy**

Question number G1 was developed to find the respondents' familiarity about the network literacy.

**Table number 35: Network literacy**

Knowledge about network literacy		
Respondents	Number	%
Yes	65	93
No	5	7
Total	70	100

Source: Field Survey

Above table number 35 shows that maximum number of respondents i.e. 65(93%) have knowledge about network literacy while 5(7%) of the remaining respondents are not familiar with network literacy.

Question number G 2 was developed to know the respondents' views who positively responded to the above question number G1 that network literacy as an essential knowledge to retrieve information.

**Table number 36: Network literacy as an essential knowledge for information retrieval**

Importance of network literacy for information retrieval		
Respondents	Number	%
Yes	65	93
No	5	7
Total	70	100

Source: Field Survey

In the table number 36 it shows that 65(93%) of the respondents have taken network literacy as an essential knowledge for getting information retrieve effectively. While 5(7%) have not taken network literacy as an essential knowledge to get information retrieved.

It is further tried to explain in question G 3 why the network literacy is essential.

**Table number 37: Essential of network literacy**

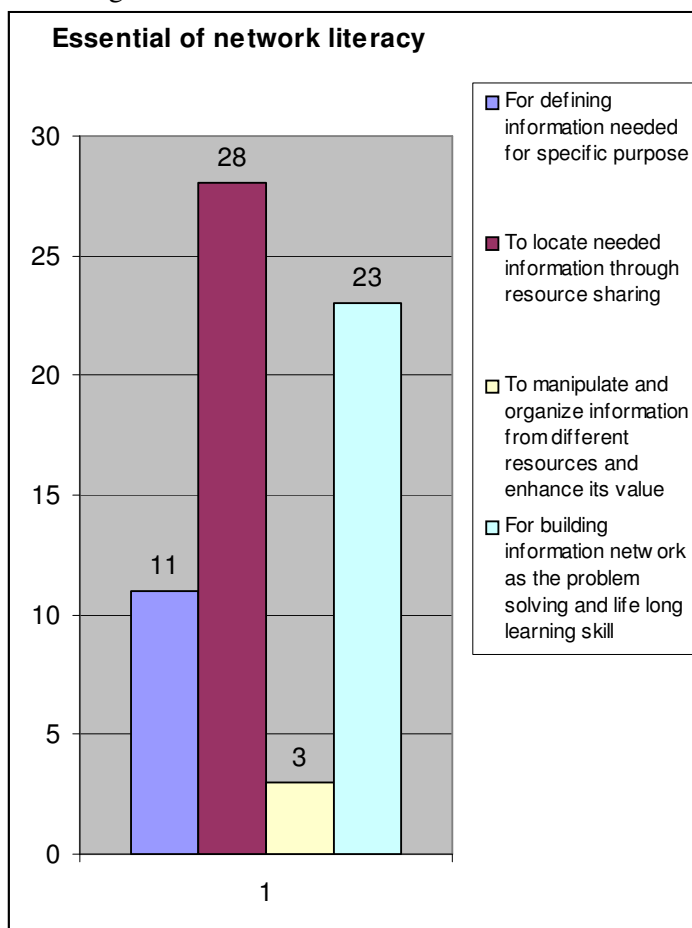
Need of Network Literacy		
Respondents	Number	%
For defining information needed for specific purpose	11	17
To locate needed information through resource sharing	28	43
To manipulate and organize information from different resources and enhance its value	3	5
For building information network as the problem solving and life long learning skill	23	35
Total	65	100

Source: Field Survey

The above table number 37 shows that 11(17%) of the respondents have felt that network literacy is an essential knowledge to have for the proper information defining purpose. 28(43%) have told for locating the needed information through resource sharing , 3(5%) have told for organizing the needed information so that the use could make ample benefit from the various resources available while 23(35%) respondents have felt that for building the information as the problem solving and life long learning medium to make the human life better network literacy is must so that users



could explore and exploit the information present at every nooks and corner of the world. Figure number 21 is for it.



**Figure number 21**

Question number G 4 was developed to know how often the respondents use network for finding information and serving their users.

**Table number 38: Frequency of using information network**

Frequency		
Respondents	Number	%
Everyday	18	26
Once a week	25	36
Once a month	11	16
Rarely	16	22
Total	70	100

Source: Field Survey

Above table number 38 shows that 18(26%) of the respondents have used the different resources through networking computers for retrieving information everyday, 23(36%) have used it once a week, 11(16%) have used it once a month while 16(16%) have used it rarely. It shows that majority of the respondents are making use of the concept of resource sharing for giving effective services to its users and making them more information literate.

Question number G 5 was developed to find the respondents' views about the comfort ness of the network environment.

**Table number 39: Users comfort ness with technology**

Network environment operating level		
Respondents	Number	%
Very Comfortable	33	47
Moderate	31	44
Very Difficult	6	9
Total	70	100

Source: Field Survey

The above table number 39 shows the respondents' comfort ness about operating the networking computers and technology from which they retrieve information. 33(47%) of the respondents have felt very comfortable in operating these technology and getting the information needed. 31(44%) have felt neither it is easy nor is complicated to operate the technology on getting the information while 6(9%) have felt very difficult to overcome the technology to get the needed information.

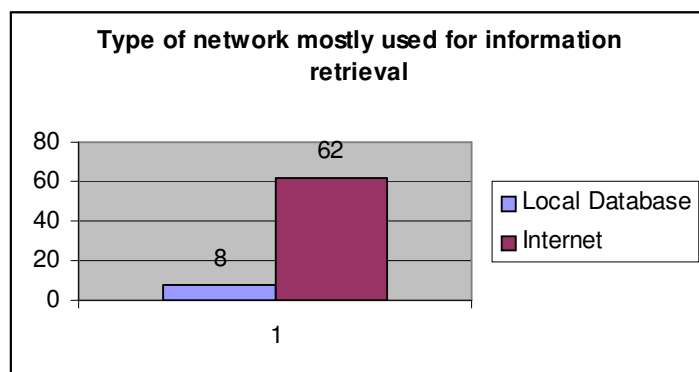
To find out the type of network technology used for retrieving information question number G 6 was developed.

**Table number 40: Type of network mostly used for information retrieval**

Mostly used network interface		
Respondents	Number	%
Local Database	8	11
Internet	62	89
Total	70	100

Source: Field Survey

The above table shows that majority of the respondents i.e. 62(89%) have used internet for retrieving information while only 8(11%) have used the local database for the needed information to be downloaded or searched for the use of their users. Figure number 22 shows it clearly.



**Figure number 22**

Question number G 7 was developed to find out the view of the respondents about information retrieval through the Internet

**Table number 41: Internet for information retrieval**

Information retrieval		
Respondents	Number	%
Easier using Internet	61	87
Difficult using Internet	9	13
Total	70	100

Source: Field Survey

Above table number 41 shows that 61(87%) of the total population of the study have found internet as easier medium to retrieve information while 9(13%) have felt it is difficult to retrieve information by using internet.

## H. Recommendations

The following section has helped to know the view of the respondents regarding information literacy and their input on the way to make user information literate.

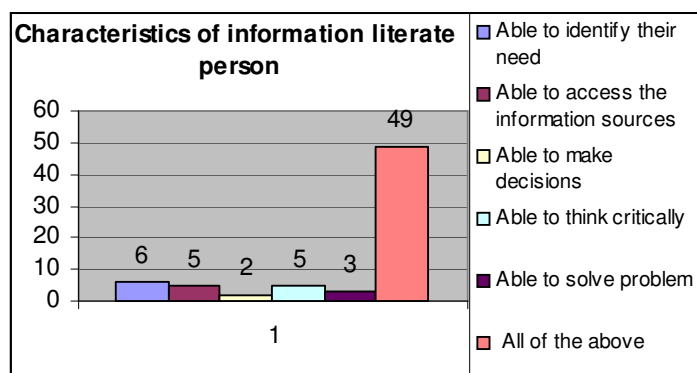
Question number H 1 was developed to learn according to the respondents what characteristics should be there in an information literate person.

**Table number 42: Characteristic of Information literate person**

Information literate should be		
Respondents	Number	%
Able to identify their need	6	9
Able to access the information sources	5	4
Able to make decisions	2	3
Able to think critically	5	7
Able to solve problem	3	4
All of the above	49	70
Total	70	100

Source: Field Survey

The above table number 42 shows the respondents' views about the characteristics that should be present in the information literate person. 6(9%) of the respondents have viewed that an information literate person should be able to identify their information needs. 5(4%) have viewed that information literate should know how to access the information sources, 2(3%) have viewed that they should be able to make decisions on what information do they need and where to look for, 3(4%) of them have thought an information literate person should be able to solve their problem with the help of the information available and try to find one if it is needed and 5(7%) of the respondents have thought an information literate person should be able to think critically. While majority of the respondents i.e. 49(70%) of them have viewed that for a person to be information literate it should have all the characteristics that are enlisted above. It is shown in figure number 23 clearly.



**Figure number 23**

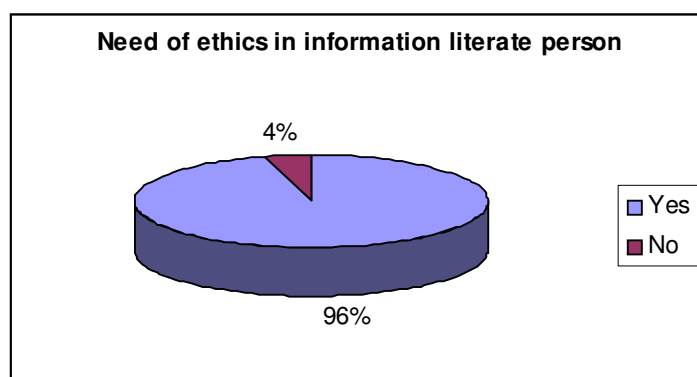
Question number H 2 was developed to find out if ethics was also important characteristics that needed to be present in an information literate person.

**Table number 43: Need of ethics in information literate person**

Ethics		
Respondents	Number	%
Yes	67	96
No	3	4
Total	70	100

Source: Field Survey

Table number 43 displays the respondents' response on the ethics as must have characteristics among the information literate. The table shows that 67(96%) have thought information literate person should have ethics on them while 3(4%) have thought they need not have any ethics. Figure number 24 is for it.



**Figure number 24**

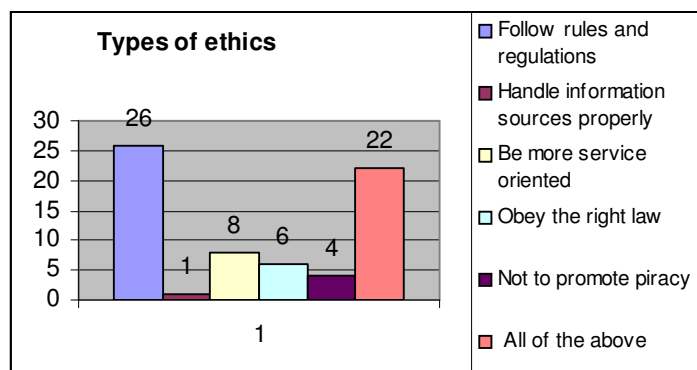
Question number H 3 was further developed to find out the types of ethics that need to be present in the information literate person.

**Table number 44: Types of ethics**

Types of Ethics		
Respondents	Number	%
Follow rules and regulations	26	39
Handle information sources properly	1	1
Be more service oriented	8	12
Obey the right law	6	9
Not to promote piracy	4	6
All of the above	22	33
Total	67	100

Source: Field Survey

The above table number 44 shows the respondents' response on the type of ethics that an information literate person needs to be possessed. 26(39%) of them have thought that they should follow the rules and regulations properly, 1(1%) of the respondent has thought that they should handle the information sources properly, 8(12%) of them have thought that they should be service oriented, 6(9%) of the respondents have thought they should obey the right law and 4(6%) have thought they should not promote piracy. Figure number 25 is for it.



**Figure number 25**

At last, it is concluded that majority of the respondents 26 (39%) have told to follow the rules and regulations as sole ethics for the information literate person.

Question number H 4 was to know the respondents' views on the need of the information literate society to be formulated or not.

**Table number 45: Necessary of information literate society**

Information Literate Society		
Respondents	Number	%
Yes	67	96
No	3	4
Total	70	100

Source: Field Survey

Table number 45 shows that 67(96%) of the respondents have told in favor of formulating an information literate society whereas 3(4%) of the respondents have not told the necessity of information literate society.

Question number H 5 was devised to further prove the point pictured by the above questions it was to see if the formulation of information literate society was necessary then what should be the responsibilities of these societies.

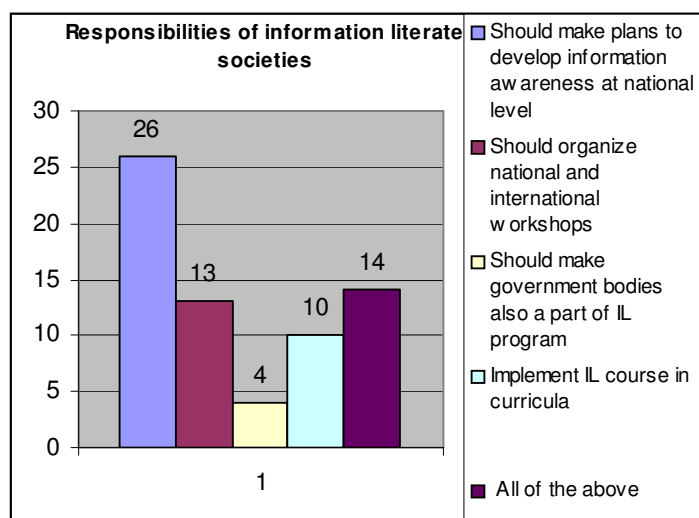
**Table number 46: Responsibilities of information literate societies**

Responsibilities		
Respondents	Number	%
Should make plans to develop information awareness at national level	26	39
Should organize national and international workshops	13	19
Should make government bodies also a part of IL program	4	6

Implement IL course in curricula	10	15
All of the above	14	21
Total	67	100

Source: Field Survey

The above table number 46 shows that 26(39%) of the respondents have felt that the responsibilities of the information literate societies should be to develop information awareness at national level, 13(19%) of the respondents have felt that these societies should organize workshops at international and national level, 4(6%) of the respondents have told they should make government official part of the literacy program so that it could be passed from the high level where as 10(15%) have told that the information literacy course should be implemented in the curriculum and taught to people. While 14(21%) of the respondents have felt all the above responsibilities should be dutifully fulfilled by the information literate societies. Figure number 26 is for it.



**Figure number 26**

Question number H 6 was developed to know the respondents' thought on where the information literacy course need to be implemented on the syllabus of different selection commissions which is shown in the table below.



**Table number 47: Implementation of information literacy course**

Information literacy course on		
Respondents	Number	%
T.U service commission	26	37
Public Service Commission	32	46
Any	12	17
Total	70	100

Source: Field Survey

Above table number 47 indicates that 32(46%) of the respondents have told the information literacy syllabus should be implemented on the public service commission, 26(37%) of the respondents have told the syllabus should be implemented in T.U Service Commission whereas 12 (17%) of the respondents told that both are equally appropriate for implementing information literacy syllabus.

Question number H 7 was developed to find the views of the respondents' on life long learning and participatory citizen make the people information literate than others.

**Table number 48: Information literate person can help for lifelong learning**

Information literacy as an active medium		
Respondents	Number	%
Yes	70	100
No	0	0
Total	70	100

Source: Field Survey

The following table number 48 shows that according to the cent percent respondents are of the thought that for a person to be information literate he needs to take information as a life long learning thing and be as actively involved in intellectual things around him.

Question number H 7 and H 8 were developed to find out from what level should the information literacy course be implemented in the study program. The data from H 8 is taken where as H 7 data is also similar to it.

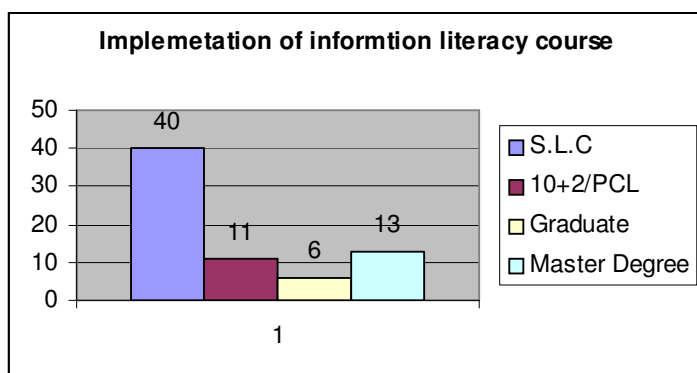
**Table number 49: Implementation of information literacy course**

Level from which IL course should be implemented		
Respondents	Number	%
S.L.C	40	57
10+2/PCL	11	15
Graduate	6	9
Master Degree	13	19
Total	70	100

Source: Field Survey

The above table number 49 is to explain about the data that shows the implementation level of the information literacy course. 40(57%) of the respondents have told that information literacy course should be implemented in SLC course, 11(15%) have told that it should be implemented in 10+2 level, 6(9%) respondents have told it should be implemented in graduate level syllabus while 13(19%) have told that it should be implemented in Master Degree level course.

This response shows that information literacy should be given to the students from the early stage of adult life so as moving on towards higher level of studies. It will be helpful to them to look for information at different sources and enhances their career due to the application of information retrieving skill. Figure number 27 is for it.



**Figure number 27**

## **CHAPTER SIX**

### **Summary, Conclusion and Recommendations**

#### **6.1. Summary and Conclusion.**

Today, Information literacy is in boundless scenario with tremendous challenges where each and every person should be familiar with all new advent of technologies and new emerged factors of information to be self literate as well make to others as so by providing library services. So, it is dire need too, in this profession to cope with the changing time and demands of the users.

It is utmost necessity to be familiar and capable to handle the burden of such challenges. So, it was the concern of this study to do research on this topic. Based upon the responses given by the respondents (students of MLISc, TU and professionals of kathmandu valley), and observations of the libraries, the researcher has found the following findings and conclusion.

1. Forty four (63%) are males and twenty six (37%) are females among the respondents.
- 2 Twenty seven (39%) are students and forty three (61%) are professionals as the category of respondents.
3. Sixteen (37%) are involved in TU libraries, Twelve (28%)/28%) are involved in governmental, and non government organizational libraries and three (7%) are involved in information Centers.
4. Sixty nine (99%) respondents have told the information scientists should be information literate and rest against it.
5. Most of the respondents, fifty five(88%) have told that the person (professional) should have all the qualities such as he / she should identify various information resources manipulate computer data and retrieve in required format, understand visuals, symbols and images, perfect in search strategies.
6. Sixty six (94%) respondents have told that catalogue is the essential tool for searching information.
7. Among 70 respondents, (57%) have preferred all types of catalogues for information retrieval i.e. bibliographic catalogue, card catalogue and online catalogue.

8. All respondents have told that user orientation is essential for making people information literate.
9. Thirty two (46%) respondents have preferred guide to the location of resources among the types of user's orientation.
10. Sixty eight (97%) have responded that abstracting and indexing is as a part of information literacy.
11. Thirty (44%) have taken electronic abstracts and indexes as best type and twenty seven (40%) have taken subject abstracts and indexes in book form are the best services to make users information literate.
12. Sixty six (94%) have responded that current content services and current awareness services also help to become information literate and rest have responded against it.
13. Thirty five (53%) have responded that CCS and CAS should be provided in weekly basis among the respondents.
14. Sixty nine (99%) respondents have taken reference service as a part of making users informatively aware (information literate).
15. Forty seven (68%) respondents have told that ready reference services is the best than other reference services.
16. Fifty six (80%) respondents have had knowledge about tool literacy where as fourteen (20%) have not had.
17. Sixteen(29%)have responded that by providing training on basic knowledge of computer application and equal numbers have responded that by providing training on search formulation are essential type of tool literacy.
18. Forty nine (70%) have their own computer and twenty one (30%) do not have.
19. Thirty one (63%) respondents have accessed to computer in the libraries and eighteen (37%) have accessed to computer from home.
20. Thirty (43%) respondents have used internet daily and twenty five (36%) have used internet once a week as the frequency in using the internet.
21. Forty seven (68%) respondents have told that they have used the internet for education.
22. Sixty three (90%) respondents have used search engines and rest have not.
23. Majority of the respondents are familiar with search engines.
24. Forty five (72%) respondents have used Google search engines and rest have used others.

25. Thirty one (44%) respondents have used email regularly.
26. Fifty nine (84%) respondents have used electronic resources of library and rest have not.
27. Nineteen (32%) have used the electronic resources of library as daily, sixteen (22%) have used once a week and rest are others as the frequency of it.
28. EBSCO Host is the most used electronic resources by twenty nine (41%) respondents among others.
29. Only twenty nine (41%) respondents have used electronic resources of library from home but not by forty one (59%) respondents.
30. Sixty four (91%) respondents have knowledge about visual literacy but rest are not familiar with it.
31. The greatest number in frequency of using visual literacy is of sometimes with number thirty five (55%).
32. Visual literacy is a better tool for information literacy which is easy to remember, understand and more effective methods.
33. CDs are most commonly used by thirty three (47%) respondents among other visual literacy tools known by them.
34. Sixty five (93%) respondents have knowledge about network literacy and rest do not have.
35. Twenty eight (43%) respondents which is the? have told that locate needed information through resource sharing is essential of network literacy..
36. The greatest number of frequency of using information network is of once a week with the number twenty five (36%).
37. Thirty three (47%) have quoted that network environment operating level is as very comfortable.
38. Sixty two (89%) respondents have used internet and eight (11%) have used local databases for information retrieval.
39. sixty one (87%) respondents have taken internet as easy medium to retrieve information and rests have not.
40. To be an information literate person, he / she should have all the capabilities about all factors.
41. Sixty seven (96%) respondents have told that information literate person should have ethics and rest against it.

42. Twenty six (39%) respondents have told to follow the rules and regulations as sole ethics for the information literate person.
43. Sixty seven (96%) respondents have told in favor of formulating an information literate society and rest are against it.
44. Twenty six (39%) with highest number of respondents have told that the responsibilities of the information literate societies should be to develop information awareness at national level.
45. Thirty two (46%) respondents have told the information literacy syllabus should be implemented on the public service commission and 26(37%) respondents have told that it should be implemented in T. U. service commission and rest have told for both.
46. All respondents (70%) have told that information literate person can recognize the habit of lifelong learning.
47. Forty (57%) respondents have told that information literacy course should be implemented in SLC course, 11 (15%) have told that it should be implemented in 10+2 level, 6(9%) respondents have told it should be implemented in graduate level and 23 (19%) have told that it should be implemented in Master Degree Level.

So, all the above findings are the output of the perspective view on personal information, information literacy, library literacy, tool literacy, computer literacy, visual literacy, network literacy of the respondents.

## **6.2 Recommendations**

Information literacy is that power and fuel by which the person can act as a catalyst to match the information needs of the users and new emerged information with thinking globally and acting locally in the face f new advent technologies. So, in this nascent scenario, some recommendations may be fruitful to suggest.

1. There should be fully professional involvement in the government libraries, non governmental organizations and information centers as well in all kinds of libraries.

2. The person should identify various information resources, manipulate computer data and retrieve in required format, understand visual symbols and image, be perfect in search strategies to become information literate.
3. Catalogues should be there as a tool for searching information. There should be of all kinds, card catalogue, bibliographic catalogue and online catalogue.
4. User's orientation should be given not missing any angle such as briefing on organizational activities, guide to the location of resources, user's manual, guide catalogue etc.
5. There should be abstracting & indexing services to make person information literate.
6. There should be all kinds of abstracts and indexes i.e. subject abstracts and indexes in book form, electronic abstracts and indexes, citations indexes, etc.
7. Current contents services and current awareness services should be provided frequently in regular basis.
8. Reference service should be provided as creation of information awareness from all types.
9. Training should be provided to the staff from each and every corner.
10. Libraries should make the users access to computers.
11. Libraries should make the users as daily users of internet.
12. Libraries should encourage the users to use the internet, search engines for overall development and various purposes.
13. Libraries should encourage the users to use electronic resources.

14. Libraries should provide accessing to library's electronic resources from home.
15. Libraries should make the users as regular users of visual literacy tools.
16. Network literacy should be provided to the users of network.
17. Each person should follow the ethics to become information literate.
18. Rules and regulations should follow as the sole ethics for information literate.
19. Information literacy topics should be incorporated in the selection process of TU Service Commission, Public Service Commission, and in all levels of education except lower secondary school.
20. It is strongly recommended that resource (printed & electronic) based learning practice should be implemented in all the academic institutions of Nepal.
21. An information literacy society should be created by all information literate person to promote information literacy in Nepal.



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## **APPENDIX 1**

### **Study on need and importance of information literacy in Nepal: special emphasis to students of MLISc (Dept of Library and Information Science T.U.) and Professional Librarians of Kathmandu.**

Dear friends

I am writing a thesis on the above topic. I need your help to complete my research.

Objectives of my research are to study Information literacy in MLIS students and professional librarians and information scientists of Kathmandu valley. Present study is based on the evaluation of information services provided by the professional librarians and information scientist to their users and the effectiveness of information literacy and information technology course to make students information literate.

I shall be grateful to you if you could provide your valuable time to fill up the questions

Please Tick in the appropriate box except the case of specify

#### **A. Personal Information**

1. Name (optional):

2. Sex: ☐ Male ☐ Female

3. Address:

4. Designation:

5. Name of office:

6 Highest qualification:

7. Are you a student of MLIS or Information Scientist or professional librarian?

☐ MLIS student ☐ Professional

8. If you are a professional where do you work please tick

☐ TU libraries ☐ Govt libraries

☐ Non Governmental Organizational library ☐ Information Centers

9. If student of MLIS

☐ 1<sup>st</sup> year

☐ 2<sup>nd</sup> year

☐ Completed MLIS

☐ Other (specify)

### **B. Information Literacy**

1. Do you think successful retrieval of information could be achieved if a person in charge is better in information literate?

☐ Yes

☐ No

2. If yes what qualities do you think they have to possess to become information literate?

☐ They should identify various information resources

☐ They should manipulate computer data and retrieve in required format

☐ They should understand visual and symbols and image

☐ They should be perfect in search strategies

☐ All the above

### **Components of information literacy (Focus of the study)**

### **C. Library Literacy**

1. Do you think catalogue is essential tools for searching information?

☐ Yes

☐ No

2. If Yes which catalogue do you think better for access required information?

☐ Bibliographic catalogue.

☐ Card catalogue.

☐ On Line Catalogue

☐ All the above

3. Do you think user's orientation is essential to make people information literate?

☐ Yes

☐ No

4. If yes what type of user's orientation do you preface?

☐ Briefing on Organizational activities. ☐ Guide to the location of resources and

☐ user's manual. ☐ Providing guide catalogs only ☐ if any specific?

5. Do you think abstracting and indexing services is also a part of Information Literacy?

☐ Yes    ☐ No

6. If yes what type of abstract and indexes do you find better?

☐ Subject abstracts and indexes in book form    ☐ Electronic abstracts and indexes  
☐ Citation indexes    ☐ Any other

7. Do you think current content services and current awareness services are addition to information literacy?

☐ Yes    ☐ No

8. If yes how frequent this services are to be provided

☐ Weekly    ☐ Fortnightly    ☐ Monthly    ☐ Any other

9. Do you think reference services are a good support for information awareness campaign?    ☐ Yes    ☐ No

10. If yes which type is better

☐ Ready reference    ☐ Long Range Reference  
☐ Short Range Reference    ☐ Any other

#### **D. Tool Literacy**

1. Do you know about tool literacy?

☐ Yes    ☐ No

2. If yes what types tool literacy is essential?

☐ Providing basic troubleshooting assistance with IT applications available at library workstations

☐ Providing training and basic troubleshooting assistance with a nominated bibliographic software package.

☐ Providing resources (style guides, etc) on

☐ Providing training on search formulation

☐ Any other



### **E. Computer Literacy**

1. Do you own a personal computer?

☐ Yes     ☐ No

2. Do you have access to a computer?

☐ At home                      ☐ At Library     ☐ Any other

3. Do you use the Internet?

☐ Daily     ☐ Once a week     ☐ At least once a month

4. If you use internet, do you use it to check for

☐ Sports     ☐ entertainment     ☐ education

☐ News     ☐ Health                      ☐ Others

5. Do you use search engines?     ☐ Yes                      ☐ No

If you answered yes please answer the following two questions

6. How often do you use search engines?

☐ Never                      ☐ Once or Twice     ☐ Monthly     ☐ Weekly     ☐ Daily

7. Which search engines do you use?

☐ Google     ☐ Yahoo     ☐ MSN                      ☐ Other (please specify)

8. Do you use E-Mail?

☐ Regularly                      ☐ Often     ☐ Some times

9. Have you ever used the library's electronic resources?

☐ Yes     ☐ No

If yes please answer the following three questions

10. Do you use the library's electronic resources

☐ Daily                      ☐ At least once a month     ☐ At least once a week

☐ Less than once a month

11. Which of the following resources do you required?

- ☐ EBSCO Host      ☐ Literature Resource Center  
☐ Academic Search Premier      ☐ Book review index  
☐ Sociological Abstract      ☐ Any other

12. Knowing that you can access these information from home will you access these library resources from home?

- ☐ Yes    ☐ No

### **Visual literacy**

1. Have you heard about visual literacy?

- ☐ Yes      ☐ No

2. If yes,

How often do you use?

- ☐ Frequently      ☐ Almost all the time      ☐ Never      ☐ Sometimes

3. How the visual literacy helps in collecting information?

- ☐ It is easy to remember.    ☐ It is easy to understand.  
☐ It is convenient.      ☐ It is appropriate method of literacy.

4. Which is the most common visual literacy do you know?

- ☐ Microfilm      ☐ Video (Tapes)    ☐ CDs      ☐ Photography

### **Network literacy**

1. Have you heard about network literacy?

- ☐ Yes    ☐ No

If yes,

2. Do you think network literacy is essential for the information retrieval?

- a. Yes                      b. No

If yes,

3. Why it is essential?

☐ To define information needed for specific purpose.

☐ To locate information needed from network with efficient information retrieval methods, skills and tools.

☐ To select and evaluate information gained from networked information on a given topic.

☐ To manipulate and organize networked information with other resources to enhance its values.

☐ To utilize analyze and present networked information for problem solving and life long learning.

4. How often do you use networked environment

☐ Everyday            ☐ Once a week        ☐ Once a month      ☐ Rarely

5. How much comfortable are you to use networked environment?

☐ very comfortable   ☐ Moderate   ☐ very difficult

6. What type of networked environment you use for retrieving information?

☐ Local database    ☐ WWW (internet)

7. Information retrieval is

☐ Easier using Internet

☐ Difficult using Internet (how?)

## Recommendations

1. Do you think the following characteristics are required for any Information Literate person? Please tick the required ones

- ☐ They should be able to identify their need.
- ☐ They should be able to access the information sources.
- ☐ They should be able to evaluate the resources.
- ☐ They should be able to making decisions
- ☐ They should be able to think critically.
- ☐ They should be able to solve their problems
- ☐ All the above

2. Do you think ethics is important for Information Literate person?

- ☐ Yes    ☐ No

3. If yes what are these ethics?

- ☐ They should follow the rules and regulations
- ☐ They should use the information resources handle with care.
- ☐ They should be service oriented
- ☐ They should obey the copy right law
- ☐ They should obey non-piracy rules
- ☐ If any other

4. Do you think information literate society should be formulated?

- ☐ Yes        ☐ No

5. If yes what should be the responsibilities of these societies

- ☐ They should force the national level organization to forward the steps to information awareness.
- ☐ They should organize the national and international workshops in information literacy
- ☐ They should invite government authority in information literacy programs
- ☐ They should recommend implementation information literacy programs in syllabus
- ☐ If any?

6. Do you think it is necessary to implement information literacy course in the syllabus of different selection commissions

☐ T.U. Service Commission.      ☐ Public Service Commissions      ☐ If any

7. Do you agree that information literate person recognizes that lifelong learning and participative citizenship requires information literacy?

☐ Yes      ☐ No

8. If yes what do you suggest for formulation of information literate society?

☐ Information Literacy course should be integrated from the primary school level

☐ Information Literacy course should be integrated from high school level

☐ Information Literacy course should be integrated from high school level to degree level

☐ If Any suggestion

9. Do you think Information literacy should be provided in

☐ S.L.C

☐ 10+2 level / PCL

☐ Graduate level ☐ Master Degree

## APPENDIX 2

### CURRICULUM VITAE

**Name** :- Saroja Shrestha  
**Gender** :- Female  
**Nationality** :- Nepali  
**Marital Status** :- Married  
**Religion** :- Hindu.  
**Languages** :- English, Nepali, ,Hindi ,Newari  
**Permanent Address** :- Tangal, Gahana pokhari, Ward . 5  
**E-mail Address** :- sarojashrestha@gmail.com  
**Contact Ph. Number** :- 442690

#### Academic Qualification:-

Exam Passed	Board/ University.	Institution	Year	Division
S.L.C.	H.M.G. Board	Kanti Ishwari	2023 B.S	3 <sup>rd</sup>
I . A.	T.U.	Ratna Rajya Laxmi	1969	3 <sup>rd</sup>
B. A.	T.U.	Ratna Rajya Laxmi	1973	3 <sup>rd</sup>
Blibsc	Culcutta University Board	Calcutta University	1982	2 <sup>nd</sup>
MLISc	T.U.	Central Department of Library and Information Science	2061 BS	